STATEMENT OF ENVIRONMENTAL EFFECTS

PROPOSED TELECOMMUNICATIONS FACILITY

ABBOTT ROAD SPORTSGROUND, NORTH CURL CURL

4 MAY 2020
PREPARED FOR OPTUS MOBILE PTY LTD

URBIS

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EXECUTIVE SUMMARY

Optus Mobile Pty Ltd (hereafter referred to Optus) has lodged a development application to Northern Beaches Council for the construction and operation of a new telecommunications facility (and floodlight pole co-location) at Lot 7356 DP1167221, Abbott Road Sportsground, North Curl Curl, NSW 2096.

Urbis Pty Ltd (Urbis) has undertaken a detailed assessment of the proposal with regard to the Warringah LEP 2011 and the Warringah DCP 2011, relevant state and Commonwealth planning policies and has taken into account the planning principles for telecommunications facilities set out in the NSW Telecommunications Facilities Guideline Including Broadband 2010.

The facility comprises the replacement of a 22 metre lighting pole with a 22.5 metre monopole, six panel antennas, nine remote radio units, council floodlights, an outdoor cabinet and other associated ancillary equipment. The new structure will have a total height of 25.7m (including antennas and floodlights).

Key issues considered in the assessment include:

- The suitability of the site for development
- Site selection and exploration of alternative candidates
- Consideration of community concerns and opinions
- Compliance with relevant state policies and controls
- Environmental impacts

The proposal will assist in providing enhanced telecommunications services to the Curl Curl area via the Optus mobile network. This assessment considers the proposed Optus mobile base station is consistent with the relevant state controls and is suitable for the subject site for the following reasons:

- The development is considered in accordance with the applicable state and Commonwealth legislation
- No environmental impacts are expected as a result of the proposed development
- The proposed telecommunications facility will provide coverage in an existing blackspot, providing the surrounding area with access to essential mobile services via Optus' 3G and 4G mobile networks. This existing blackspot was amplified with the scheduled removal of a nearby existing telecommunications facility in McKilllop Park
- The proposal will provide additional network support during the event of an emergency.
- The telecommunications facility will co-locate with council flood lighting, reducing the potential for unnecessary structures and visual clutter within the site

The proposed development is considered appropriate for the site and Optus therefore seeks council's approval of the development application. This Statement of Environmental Effects report should be read in conjunction with the site plans in Appendix B.

1. INTRODUCTION

This Statement of Environmental Effects (SEE) has been prepared by Urbis on behalf of Optus to support a development application for the installation of a telecommunications facility at Lot 7356 DP1167221, Abbott Road Sportsground, North Curl Curl, NSW 2096.

Optus has identified an area of poor network coverage in the North Curl Curl area, in particular around Curl Curl Beach and the properties on the southern side of Curl Curl Lagoon. As such, Optus will require the installation of a new telecommunications facility in the Curl Curl area. A new telecommunications facility located within Curl Curl would address the identified black spot whilst also providing the capacity lost with the removal of the McKillop Park facility.

Mobile network coverage and capacity has historically been poor in the Curl Curl area and has intensified following the removal of an existing telecommunications facility installed on a light pole at McKilllop Park. In response to community concerns about coastal views, Optus decommissioned a telecommunications facility at McKilllop Park and removed all telecommunications equipment from the light pole.

The proposed telecommunications facility will comprise a 22.5 metre monopole, six panel antennas, fourteen remote radio units, council floodlights, an outdoor cabinet and other associated ancillary equipment and will have a total height of 25.7m (including antennas and floodlights).

This report details the merits of the proposed development with regard to the Warringah Local Environmental Plan 2011 and the Warringah DCP 2011 the relevant state and Commonwealth planning policies. The planning principles for telecommunications facilities set out in the NSW Telecommunications Facilities Guideline Including Broadband 2010 have also been taken into account. This SEE also provides a background to mobile networks, electromagnetic energy (EME) the purpose of this particular proposal, the history of the site selection and community consultation and the site characteristics.

2. MOBILE TELECOMMUNICATIONS SYSTEMS

Mobile telecommunications systems are based on the use of small, low-powered, intelligent two-way radio transmitters (mobile phones) that are interconnected over radio channels to the telephone network via a series of mobile base stations.

A network of base stations provides coverage across the region. Each base station consists of a series of antennas, an equipment shelter and associated cabling, and is designed to provide network coverage to the area immediately surrounding the base station – up to several kilometres. Depending on coverage requirements and objectives, and the particular characteristics of each site, the shape, number and size of antennas will vary for each location (Figure 1).

Each base station transmits and receives signals to and from mobile devices in the area. As the mobile phone user moves around, their handset will communicate with the nearest set of antennas to them at all times. If they cannot pick up a signal, or the nearest base station is congested (already handling the maximum number of phone calls) the user may not be able to place a call, or a call might 'drop out'.

The signals transmitted between the base station antennas and mobile phone need to be unimpeded, which mean that reliable communication is limited mainly to 'line of sight' of the mobile device. Whilst some buildings and foliage can be penetrated, radio signals cannot penetrate more substantial objects, such as hills.

As a general rule, the higher a base station is elevated and the taller a base station structure is, the greater its range of coverage. If this height is compromised, additional base stations, and thus more infrastructure will be required for any given locality. The further a base station is located away from its technically optimum position, the greater the compromise of coverage. This may result in coverage gaps and require additional base stations to provide adequate coverage.

Figure 1 - Mobile Phone Networking Diagram

3. PURPOSE OF THE PROPOSAL

Optus has identified an area of poor network coverage in the North Curl Curl area, in particular around Curl Curl Beach and the properties on the southern side of Curl Curl Lagoon.

Outdoor coverage is inadequate, particularly for 4G services. In-building performance is extremely poor resulting in there being issues with making calls indoors within the area. This is especially prevalent south of Curl Curl lagoon near the beach area and the residential properties located in this vicinity.

Mobile network coverage and capacity has historically been poor in the Curl Curl area and has intensified following the removal of an existing telecommunications facility installed on a light pole at McKilllop Park. In response to community concerns about coastal views, Optus decommissioned a telecommunications facility at McKilllop Park and removed all telecommunications equipment from the light pole; this has amplified the existing black spot.

Considering the above, Optus will require the installation of a new telecommunications facility in the Curl Curl area. A new telecommunications facility located within Curl Curl would address the identified black spot whilst also providing the capacity lost with the removal of the McKillop Park facility.

Figure 2 illustrates quality of coverage in and around the Curl Curl area (provided by Optus in April 2020). Coverage is 'moderate' in Curl Curl, becoming 'poor' towards the Freshwater area. You can also see the considerable blackspot in the area thought the absence of a telecommunications facility.

Coverage will become 'good' around the area of the telecommunications facility following its installation with 'poor' areas eliminated in between Curl Curl and Freshwater as illustrated in Figure 3.

Figure 2 - Existing coverage in the Curl Curl area and locations of existing Optus telecommunications facilities (Source: Optus, 2020)

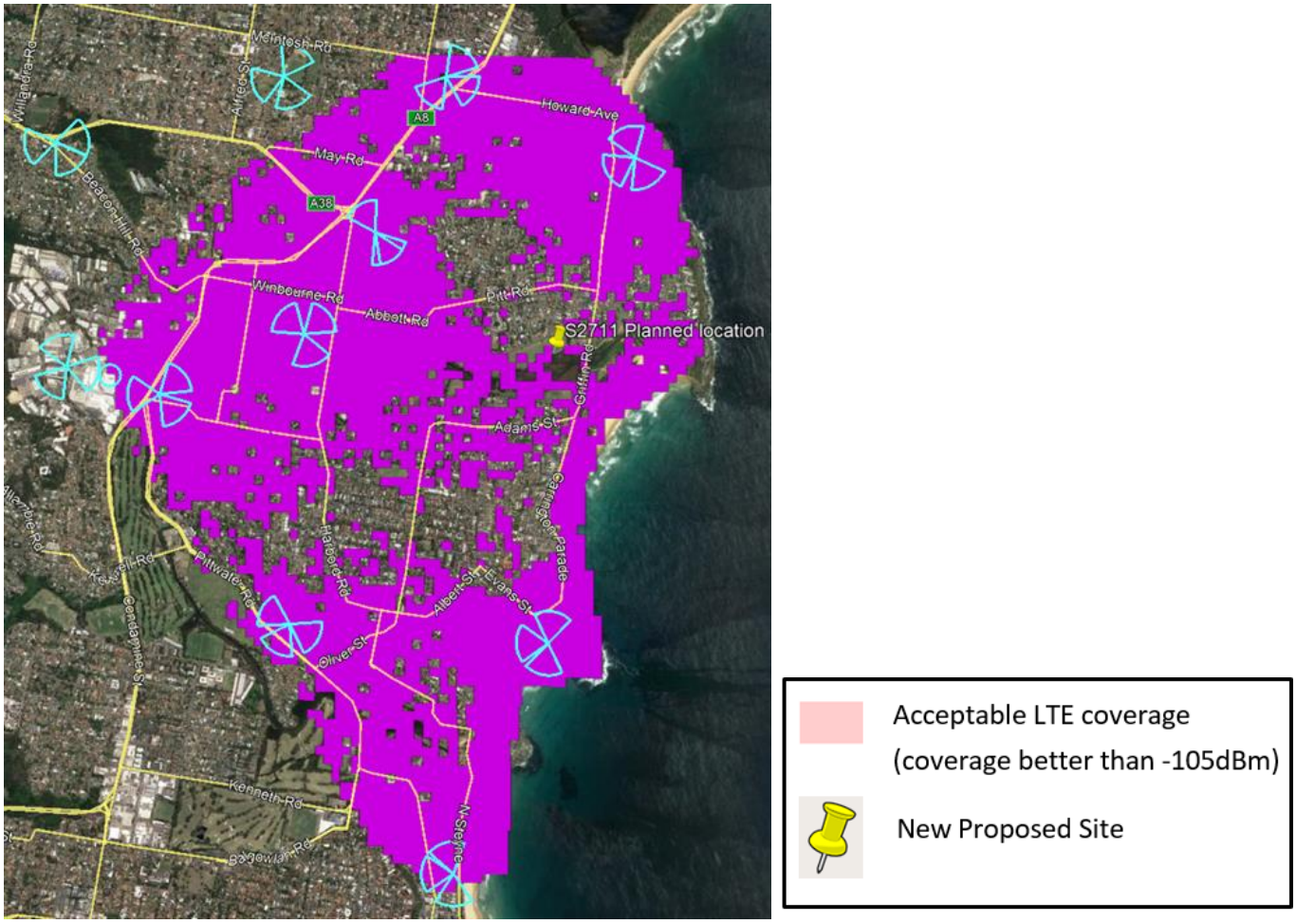
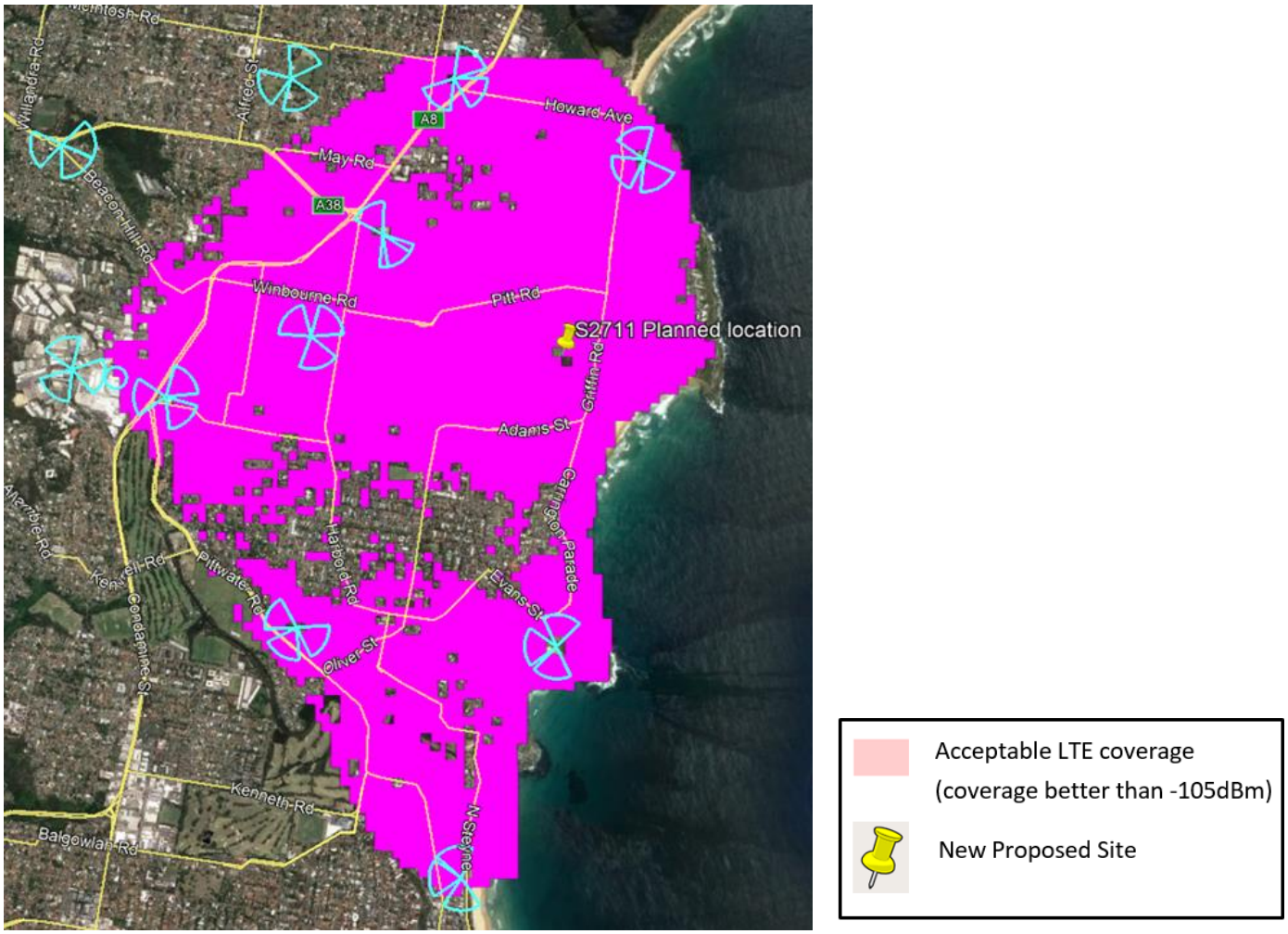


Figure 3 - Modelled coverage in the Curl Curl area following the installation of a new telecommunications facility (Source: Optus, 2020)



The modelling in figure 3 is based on the height configuration for this Optus facility and Optus has engineered the facility to that the design is at a minimum height and bulk to achieve the coverage shown. Amendments to this were modelled at lower heights which showed that coverage would not be provided and thus the facility would not be suitable.

As detailed in section 4.1 (and as can be seen in figure 4) there are no other carrier's telecommunication facilities within the area and all of the other carriers are also experiencing similar coverage issues. These issues are only becoming worse over time as reliance on mobile technology for internet and connectivity becomes more prevalent. In this location this is particularly important as a safety issue in proximity to Curl Curl beach, Curl Curl; Lagoon and the sports fields (as well as for residents within their homes and conducting business).

Given the above requirements and need for the facility and the constraints around its placement and design (as discussed in more detail in section 4.2) this is the only possible option for a telecommunications facility in this area to fill this blackspot.

Refer to Appendix U for Optus Curl Curl Coverage Maps

4. SITE SELECTION AND COMMUNITY CONSULTATION

The site selection process undertaken by Optus aims to identify potential sites that meet the technical requirements of the network with a view to also having the least possible impact on the surrounding area. Optus applies and evaluates a range of criteria as part of this site selection process.

Optus assesses the technical viability of potential sites through the use of computer modelling tools that produce predictions of the coverage that may be expected from these sites, as well as from the experience and knowledge of the radio engineers.

The following factors were also considered:

- The potential to co-locate on an existing telecommunications facility.
- The potential to locate on an existing building or structure.
- Visual impact and the potential to obtain relevant town planning approvals.
- Proximity to community sensitive locations and areas of environmental heritage.
- The cost of developing the site and the provision of utilities (power, access to the facility and transmission links).

The remainder of this section details the site section process undertaken in the area.

4.1. EXISTING TELECOMMUNICATIONS SITES

A review of the existing telecommunications structures in and around the Optus search area was undertaken to establish the potential for co-location. The review was undertaken through use of the Radio Frequency National Site Archive (RFNSA) website and during a scoping visit to the area by Urbis consultants.

The sites identified within and nearest to the search area are listed in Table 1 and illustrated in Figure 4. None of these existing telecommunications sites were suitable for co-location; the reasons are listed in Table 1.

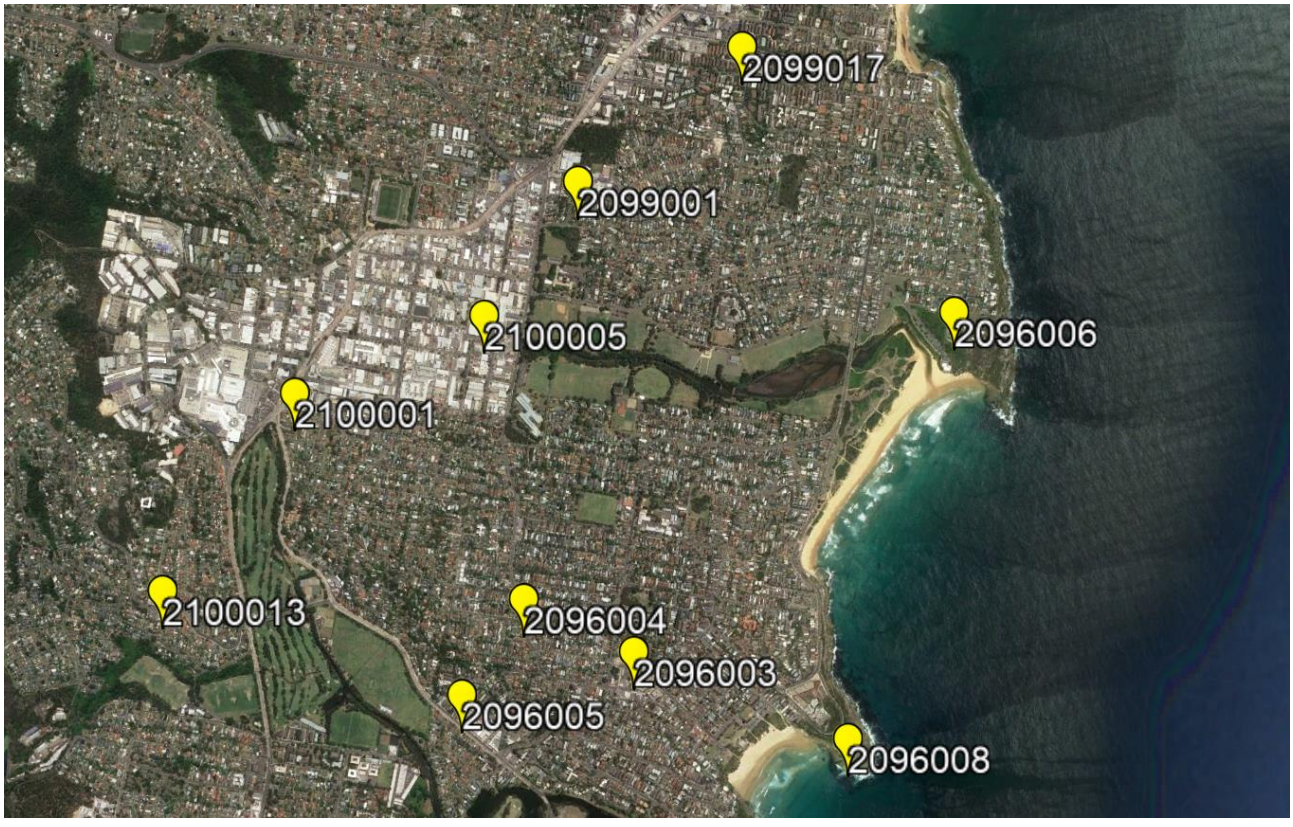


Figure 4 - Existing telecommunications facilities in closest proximity to the targeted coverage improvement area

Table 1 - Existing telecommunications sites within the Curl Curl area

23 SONIVER ROAD, CURL CURL, NSW 2099	
Site Details	10m Wooden Power Pole
RFNSA #	2096006
Conclusion	This site is an existing Vodafone facility located on a 10m wooden Ausgrid power pole. This existing facility would not support additional equipment – it is therefore not structurally viable to co-locate upon this structure. For Optus to install equipment here that would adequately address the coverage deficiency, the wooden pole would need to be replaced with a 20m monopole with an additional equipment shelter installed located adjacent on the ground. This site is extremely close to existing residential properties (less than 10m) and is also situated on a prominent headland. An increase in the volume of equipment or the height of the structure would be expected to cause significant visual impact to the properties to the south (less than 10 metres) but also to the north (50-60 metres from the site). Further, with the site being located on the headland it would be expected to be highly visible from the wider Curl Curl area. It was considered that the expected visual impact from a 20m pole in this location would be unacceptable and that other locations would be preferable from a visual impact perspective. It should also be noted that to located a new monopole in replacement of this wooden pole may be challenging from a construction perspective given the limited room at this site for a pole of this size with adequate foundations.
224 HEADLAND ROAD, DEE WHY, NSW 2099	
Site Details	18m Steel Pole
RFNSA #	2099001
Conclusion	This site is located 1.3 kilometres from the site search area identified by Optus and therefore is too far away from the area targeted for coverage improvements. Furthermore, the site already hosts Optus equipment and an upgrade of this equipment would have no impact on the current coverage and capacity issues in Curl Curl.
2-4 WILLIAM STREET, BROOKVALE, NSW 2100	
Site Details	Rooftop Facility
RFNSA #	2100001
Conclusion	This site is located over 2 kilometres from the site search area identified by Optus and therefore is too far away from the area targeted for coverage improvements. Furthermore, the site already hosts Optus equipment and an upgrade of this equipment would have no impact on the current coverage and capacity issues in Curl Curl.

9-13 WINBOURNE ROAD, BROOKVALE, NSW 2100	
Site Details	30m Steel Pole
RFNSA #	2100005
Conclusion	This site is located 1.5 kilometres from the search area identified by Optus and therefore is too far away from the site search area. Furthermore, the site already hosts Optus equipment and an upgrade of this equipment would have no impact on the current coverage and capacity issues in Curl Curl.
53-55 OAKS AVENUE, DEE WHY, NSW 2099	
Site Details	Rooftop Facility
RFNSA #	2099017
Conclusion	This rooftop site hosts Vodafone equipment and is located 1.2 kilometres from the search area identified by Optus. Installing Optus equipment at this location would not provide the coverage improvements required in the Curl Curl area, considering its distance from the search and the elevated terrain in between this site and the site search area (peaking at Quirk Street) which would impede coverage.
186-188 PACIFIC PARADE, DEE WHY, NSW 2099	
Site Details	Rooftop Facility
RFNSA #	2099013
Conclusion	This rooftop site hosts Telstra equipment and is located over 3 kilometres from the search area identified by Optus. Installing Optus equipment at this location would not provide the coverage improvements required in the Curl Curl area considering its limited height and the distance to the site search area.
22 WAINE ST FRESHWATER NSW 2096	
Site Details	Rooftop Facility
RFNSA #	2096005
Conclusion	This site is located 1.5 kilometres from the search area identified by Optus and therefore is too far away from the site search area. Furthermore, the site already hosts Optus equipment and an upgrade of this equipment would have no impact on the current coverage and capacity issues in Curl Curl.

87 HARBORD RD, FRESHWATER NSW 2096	
Site Details	Rooftop Facility
RFNSA #	2096004
Conclusion	This is a two-storey building over 1 kilometre from the search area identified by Optus. The structure does not provide the required elevation for the antennas especially considering the distance from this address to the site search area.
19 OLIVER STREET FRESHWATER NSW 2096	
Site Details	External Wall Mounted Antennas
RFNSA #	2096003
Conclusion	This building is over 1 kilometre from the search area identified by Optus. Installing Optus equipment at this location would not provide the coverage improvements required in the Curl Curl area, considering its distance from the search and the elevated terrain in between this site and the site search area (peaking near Cooksey Ave) which would impede coverage.
MCKILLOP PARK, LUMSDAINE DRIVE FRESHWATER NSW	
Site Details	Antennas installed on a light pole
RFNSA #	2096008
Conclusion	This was formerly an Optus telecommunications facility, however it was decommissioned in 2017 in response to community concerns about coastal views. Therefore, this site cannot be considered.

4.1.1. Summary

For the reasons identified above, it was concluded that Optus could not co-locate equipment at any of these sites nor upgrade existing equipment at any of these sites to provide the required coverage improvements. Optus then proceeded to investigate potential locations for a new telecommunications facility.

4.2. NEW SITES

The sites identified in Figure 5 and listed below were those considered most suitable following a desktop review and a scoping visit to the search area defined by Optus. These sites were investigated in detail to identify the suitability of each for installing a new telecommunications facility.

A. Field Number 5, Abbott Road Sportsground, North Curl Curl
B. Dee Why RSL Bowling Club, corner of Griffin Rd and Abbott Rd, North Curl Curl
C. Ausgrid Pole, Road Reserve next to 23 Pitt Road, North Curl Curl
D. Stewart House, 45 Carrington Parade, Curl Curl
E. Richie Roberts Reserve, off Griffin Road
F. John Fisher Park (southern side of Curl Curl Lagoon)
G. North Curl Surf Life Savers Curl Carpark, Huston parade, North Curl Curl
H. Harbord Diggers Club, 66-78 Evans Street, Freshwater, Curl Curl

A community information session was held on 26 November 2015 where Candidates A and B were put forward to the community for feedback. Candidates C, D and E were suggested by members of the community and investigated but deemed unsuitable. Candidates F, G, and H were suggested by council at a pre-development meeting.

Refer to section 7.2 for further details regarding community consultation.

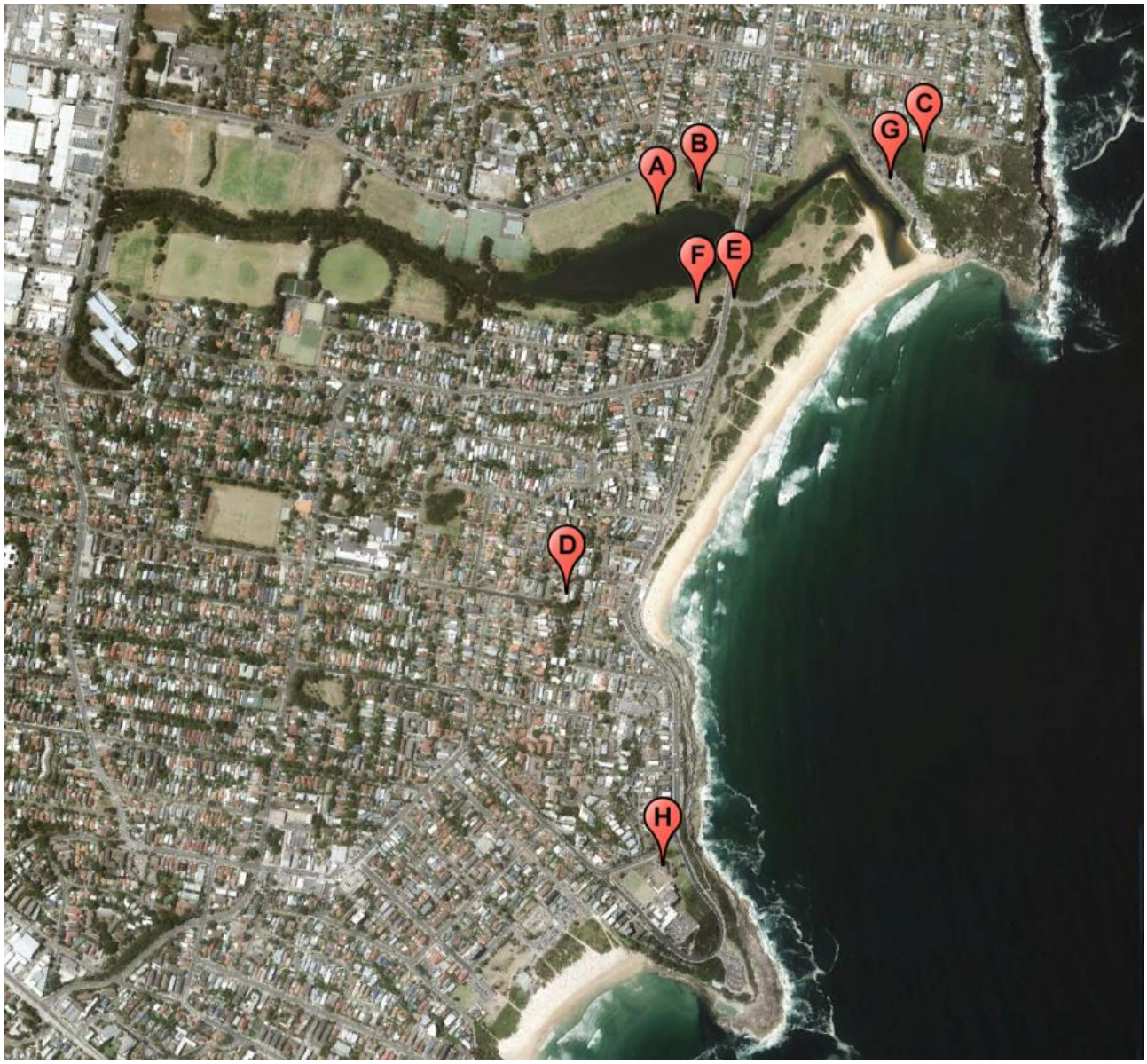


Figure 5 - Locations of New Telecommunications Facility Site Candidates

4.2.1. Candidate A - Field Number 5, Abbott Road Sportsground, North Curl Curl

Figure 6 - Image of Candidate A

Proposal: Replacement of an existing 22 metre floodlight pole with telecommunications equipment flush-mounted to the top section of the pole and an associated equipment shelter adjacent on the ground.

Details: This candidate is an existing flood light pole located north of Curl Curl lagoon within Abbott Road Field. A bowling club is located adjacent to the east and playing fields to the west. Curl Curl North public school is located approximately 350 metres to the north west of the site.

It was proposed to install antennas on top of the pole increasing its height to 28.3 metres whilst retaining the lighting at its current height. The equipment shelter would be adjacent on the ground set off the actual sporting field colour matched green to blend with its background. As there is an existing vertical pole structure and there is a separation between residential and other land uses, this site was considered an appropriate for a telecommunications facility and this was taken forward as a candidate for consideration.

A decision was initially made by Optus not to proceed further with a proposal at this site due to the alternative candidates suggested by the community and council. However, due to the DA refusal for Candidate F Optus has considered the reasons for that refusal and taking this into account has returned to this candidate as it is considered that this candidate has the least impact visually on the surrounding area whilst utilising existing infrastructure. This therefore seeks to address the reasons for refusal for Candidate F in this new proposal.

4.2.2. Candidate B - Dee Why RSL Bowling Club, corner of Griffin Rd and Abbott Rd, North Curl Curl

Figure 7 - Image of Candidate B

Proposal: Install a 25 metre telecommunications monopole with an equipment shelter located on the ground adjacent to the pole at the rear of the bowling club (southern end).

Details: This site is the former site of the Dee Why RSL Bowling club, which is now used as North Curl Curl Community Centre, and is also home to the Curly Community Garden.

Curl Curl lagoon is located immediately to the south, the Abbott Road Sports Ground is immediately to the west, and to the north and east are residential areas properties on the opposite sides of Abbott Rd and Griffin Rd.

This site was considered given that the adjacent park has a number of floodlights of 22m in height. The proposed new pole would not look out of character in this area considering the existing vertical pole structures. There is a suitable separation away from residential and other land uses and as such, this site was considered an appropriate location for a new telecommunications facility. This site was ultimately discounted due to it introducing a new vertical element in the area when there were existing light poles that could be swapped out and therefore not providing additional impacts to visual amenity.

4.2.3. Candidate C - Ausgrid Pole, Road Reserve next to 23 Pitt Rd, North Curl Curl

Figure 8 - Image of Candidate C

Proposal: Replace existing 10 metres Ausgrid wooden pole with 20 metre steel pole, install Optus telecommunications equipment mounted at the top of the pole and install an equipment shelter on the ground near the base of the pole.

Details: This site is located 25 metres west of the existing Vodafone site on Soniver Road. This is an existing Ausgrid Pole however it is not directly opposite properties unlike the Vodafone pole, being at least 25 metres away from the nearest residence. Taking into account the existing telecommunications infrastructure it was proposed that this could be a suitable location to install Optus equipment.

On examining the site from a variety of disciplines it was decided that this would not be a suitable site to install an Optus telecommunications facility. The site was considered to be too close to existing residences (within 25 metres) as there are sites which will provide more of a buffer and thus cause less visual impact for these residential properties. Furthermore, being located on a prominent headland means that a new 20 metres steel pole would cause prominent visual impact to a wider area, which is not considered acceptable or compliant with Council policies contained within the Warringah Local Environmental Plan 2011 or the NSW Telecommunications Facilities Guideline in regards to Principle 1 – Visual Impact

4.2.4. Candidate D - Stewart House, 45 Carrington Parade, Curl Curl

Figure 9 - Image of Candidate D

Proposal: Install flush-mounted antennas to northern and southern sides of the existing building with the additional equipment installed internally under the building.

Details: This site is a care home for public school children in NSW and ACT providing educational and health programmes to support their wellbeing. The organisation has been approached by telecommunications carriers on multiple occasions over the years as the property is on an elevated site and it would be expected that it would enable good coverage. The organisation was interested as rental received would directly benefit the charity.

However, this site was discounted from further investigation due to issues with designing a facility to comply with heritage constraints on the site, and furthermore, Optus' strict EME regulations meant that designing a facility to overcome the terrain constraints in this area whilst remaining within the EME regulations proved difficult.

4.2.5. Candidate E - Richie Roberts Reserve, Off Griffin Rd, Curl Curl

Figure 10 - Image of Candidate E

Proposal: 25 metre telecommunications monopole with equipment shelter located on the ground adjacent to the new pole.

Details: This site on the beach side of Griffin Road is currently used as a car park and dog walking park and has suitable separation from residential areas. It was proposed that the space adjacent to the road could be utilised to place a 25 metre monopole and associated equipment fitting into context with the power poles along this busy section of road.

Optus investigated this candidate and opened discussions with the landowner (NSW Department of Lands) and Northern Beaches Council parks officers (formally Warringah Council). There were early optimistic discussions with both parties but it was considered that the visual impact upon the beach would be unacceptable and thus this site was not pursued further.

4.2.6. Candidate F – John Fisher Park (Southern Side of Curl Curl Lagoon)

Figure 11 - Image of Candidate F

Proposal: Install a 25 metre monopole and associated ancillary equipment shelter located adjacent on the ground level.

Details: This candidate was suggested by the community because there it allows a buffer to existing community sensitive uses (schools and residences and Curl Curl Beach). This side of the park does not have many vertical elements such as poles; however Griffith Road does have a number of power poles and there are existing flood lights on the northern side of the waterway. This location also has the benefit of existing trees along the site boundary providing extra visual screening to the coastline and properties north and south of the park.

After discussions with Northern Beaches Council staff it was concluded that the most appropriate installation in this location would be for a telecommunications and flood light co-location. The pole would be located by one of the corners of the soccer pitch, allowing council to upgrade the rest of the field at a future date with three further poles. The shelter would be located adjacent to the trees on the east of the site near the boundary with Griffith Road.

Optus lodged a development application with Northern Beaches Council in April 2017; however the development application was refused in July 2017, having been assessed to have unacceptable impacts with regard to the natural and built environments and the social impacts in the locality mainly in regards to its impact visually and that it is only one pole proposed stand alone on this side of the park at that current time.

4.2.7. Candidate G – North Curl Curl Carpark, Huston Parade, North Curl Curl

Figure 12 - Image of Candidate G

Proposal: Replace existing light pole with 10m light pole with Optus antennas located on top with associated equipment adjacent on the ground

Details: The Curl Curl Surf Life Savers car park overlooks Curl Curl Beach and has views to Freshwater across the headland. This site was suggested by council officers as a potential site for a light pole replacement and co-location. This site would be restricted in height due to expected visual impact to the properties to the north and from Curl Curl Beach.

This candidate would fit in with utilising existing infrastructure and would be an understated solution to providing a base station within Curl Curl

Further investigation identified that the height that could reasonably be achieved here would not be beneficial to addressing Optus' coverage objectives. As a result, this site was discounted.

4.2.8. Candidate H – Harbord Diggers Club – 66-78 Evans Street, Freshwater, Curl Curl

Figure 13 - Image of Candidate H

Proposal: Installation of Optus antennas on the rooftop with associated equipment shelter within the building.

Details: The Harbord Diggers Club sits on the prominent headland within Freshwater. At the time of the initial site search, the RSL club was undergoing a redevelopment.

It was proposed that a rooftop installation could replace the site that is being decommissioned at nearby McKillop Park, however further investigation identified that the site is too far away from Curl Curl. Although a new facility here could solve some of the difficulties with service in Freshwater a blackspot would remain in South Curl Curl and a separate site would still need to be installed there.

4.3. CONCLUSION

For the reasons discussed in this section and summarised in, Optus has now concluded that Field Number 5, Abbott Road Sportsground (Candidate A) is the most suitable location for a new telecommunications facility.

Optus is now seeking development approval for a new telecommunications facility at the Field Number 5, Abbott Road Sportsground, (Candidate A) on the north side of Curl Curl Lagoon.

It is expected that the installation would cause a degree of visual impact however it does provide a separation to the nearest residences and sensitive uses. The new monopole will allow existing lighting to be incorporated from the light pole which it will replace.

Optus is confident that through sensitive design measures, the impact of the facility on the surrounding area will be minimised.

Table 2 - New site candidates and summary of comments

Candidate	Address	Summary
A	Field Number 5, Abbott Road Sportsground, North Curl Curl	Initially discounted due to environmental impacts and negative feedback from the community, however this candidate is now the prime candidate
B	Dee Why RSL Bowling Club, North Curl Curl	Environmental Impacts and negative feedback from the community.
C	Ausgrid Pole, Road Reserve next to 23 Pitt Road, North Curl Curl	Unsuitable construction access and visual impacts
D	Stewart House, 45 Carrington Parade, Curl Curl	Environmental impacts to heritage item and technical EME issues.
E	Richie Roberts Reserve, Off Griffin Road	Visual impact to the coastline
F	John Fisher Park (southern side of Curl Curl Lagoon)	Development application refused due to environmental impacts
G	North Curl Surf Life Savers Curl Car park, Huston parade, North Curl Curl	Technical Requirements
H	Harbord Diggers Club, 66-78 Evans Street, Freshwater, Curl Curl	Technical Requirements

5. THE SITE AND SURROUNDING AREA

5.1. THE SITE

Address	Abbott Road Sportsground, North Curl Curl, NSW 2096
Legal description	Lot 7356 DP1167221
Owner	Northern Beaches Council / Crown Land

The site selected for the proposed telecommunications facility is known as Abbott Road Fields and is used as playing fields (Refer to Figure 14). This is an area of public recreation (RE1 land use zone) containing sports playing fields and facilities.

The site of the proposed telecommunications facility is bound by Curl Curl Lagoon to the south and Abbott Road to the north. It is proposed that an existing 22 metre flood light pole is replaced with a new telecommunications monopole on the southern side of the site (which is on the northern side of the lagoon). Telecommunications equipment and lighting will be co-located on the new structure.

The monopole will be in a similar position to an existing flood light pole (which is proposed for replacement) and the outdoor cabinet will located be behind the existing baseball mesh.

There are existing trees situated within the subject site however these will all be retained. Recently planted native tubestock would be impacted by the proposal, however this would be replanted.

Vehicular access to the site is available via an existing gate on Abbott Road. Vehicles accessing the facility would need to traverse the playing fields for construction and maintenance of the facility.

Figure 14 - Location of the Proposed Facility (Source: Google Earth Pro, 2018)

Figure 15 - Lot 7356 DP1167221 (Source NSW Spatial and Information Exchange 2019)

5.2. THE SURROUNDING AREA

The area surrounding the site is predominantly residential and a minimum separation of 100 metres to the nearest residences is in place. Curl Curl Lagoon is south of the site and stretches to the east and west, connecting to the Pacific Ocean approximately 500m to the south east.

The following locally listed heritage items are located within Lot 7356 DP1167221 (refer to section 9.3.1.2 for further details):

- Coastal Cliffs
- North Curl Curl Rock Pool
- WW1 Obelisk

Though within the same lot, the above items are over 500 metres away from the telecommunications facility development footprint therefore there will be no impacts upon these items.

Figure 16 - Points of interest in the surrounding area

Notable locations and features in the surrounding area (refer to Figure 16) and their respective distances from the proposed telecommunications facility are as follows:

- Curl Curl North Public School (350m)
- Harbord Public School (850m)
- Delmar Private Hospital (1.2km)
- St John the Baptist Catholic Primary School (1.2km)
- Northern Beaches Secondary College (1.2km)
- NBSC Freshwater Senior Campus (1.3km)
- St Luke's Grammar School (1.3km)

As all of the above listed points of interest are over 350 metres from the proposed telecommunications facility, it is concluded that there would be no impacts upon these points of interest.

6. THE PROPOSAL

6.1. THE PROPOSED DEVELOPMENT

The proposed telecommunications facility (with an overall height of 25.7 metres) comprises:

- A 22.5 metre flood light pole with structural capacity to support telecommunications equipment and lighting.
- Six panel antennas of the following dimensions:
    - 2600mm (H) x 548mm (W) x 150mm (D)
    - Attached on a turret mount at a centre line height of 25.5 metres providing an overall height of 28.3 metres
- An Optus vandal proof outdoor cabinet, screened by landscaping and on a raised metal platform of the following dimensions:
    - 2940mm (H) x 2380mmn (W) x 3150mm (D)
- Nine remote radio units
- Underground power and fibre connections
- Associated ancillary equipment

Refer to Site Plans in Appendix B for further information.

6.2. PROPOSED AREA OF MOBILE COVERAGE ENHANCEMENT

The proposed Optus telecommunications facility will improve mobile coverage and capacity for all existing, essential mobile services (voice calling, SMS) via the Optus network. The new facility will also improve 4G communications services to the area. This includes live video calling, video-based content services including news, finance and sports highlights, and a high-speed wireless internet service via the 4G phone network – Wireless Broadband.

As outlined in Section 3 of this SEE, an area of poor network coverage performance has been identified in the Curl Curl area.

Mobile network coverage and capacity has historically been poor in the Curl Curl area and has intensified following the removal of an existing telecommunications facility installed on a light pole at McKilllop Park. In response to community concerns about coastal views, Optus decommissioned a telecommunications facility at McKilllop Park and removed all telecommunications equipment from the light pole.

The decommissioning of the nearby facility has resulted in amplification of the black spot and a lack of nearby telecommunications facilities to provide adequate network coverage and a greater demand on the network capacity of the remaining telecommunications facilities surrounding the Curl Curl area.

A new telecommunications facility will address the coverage black spots and provide increased network capacity.

7. COMMUNITY CONSULTATION

7.1. INDUSTRY CODE C564:2018 MOBILE PHONE BASE STATION DEPLOYMENT

In response to calls for greater council and community involvement when telecommunications facilities are installed, the Communications Alliance Ltd developed the 'Industry Code - Mobile Phone Base Station Deployment' (more commonly referred to as the Deployment Code).

The Deployment Code cannot change the existing regulatory regime for telecommunications at local, State or Federal level. However, it supplements the existing obligations on carriers, particularly in relation to community consultation and the consideration of exposure to radio signals, sometimes known as electromagnetic energy (EME or EMR).

The Code imposes mandatory levels of notification and community consultation for sites complying with the Telecommunications (Low-impact Facilities) Determination 2018 and the State Environmental Planning Policy (Infrastructure) 2007. It identifies varying levels of notification and/or consultation depending on the type and location of the infrastructure proposed.

The subject proposal, in not being designated 'Low-Impact' or Exempt or Complying Development, is not subject to the notification or consultation requirements associated with the Deployment Code. These processes are handled within the relevant State consent procedures.

Nevertheless, the intent of the Code, to ensure Carriers follow a 'precautionary approach' to the siting of infrastructure away from sensitive land uses, has been followed in the selection of this site as demonstrated in the Deployment Code Section 4 Precautionary Approach Checklist (Refer to Appendix F. Included in the Section 4.1 Checklist is a statement of how the public's exposure to EME from the site has been minimised. All emissions from the site will be well within the requirements of the relevant Australian Standard. Details of this standard are contained in the following section. Also included is the Deployment Code Section 4.2 Precautionary Approach Checklist which demonstrates how the proposal has been designed in accordance with the Code's 'precautionary approach'.

This site has been selected and designed to comply with the requirements of the Deployment Code in so much as the precautionary approach has been adhered to and, as a result the best design solution has been achieved.

Refer to the Precautionary Approach Checklists in Appendix F.

7.2. COMMUNITY INFORMATION SESSION

Optus is mindful that in recent years there has been concern about the impacts of telecommunications facilities on the Curl Curl community. As such, Optus identified that it would be appropriate to engage with the community at an early stage and provide opportunity to comment on what it had identified as the most appropriate sites for the installation of a new telecommunications facility.

Two community information sessions were held on 26 November 2015 at Curl Curl Sports Centre, Abbott Rd, North Curl Curl. Invitations to the community information session were delivered to 3000 properties on 9 November 2015 (refer to Figure 17). The letters provided opportunity to comment on the proposal via email or post. A notice advertising the community information session was also displayed in the Manly Daily on Tuesday 24 November 2015 (Refer to Figure 18).

At the information session, Optus outlined the requirement for the installation of a new telecommunications facility and indicated that candidates A and B were considered the most sites. Attendees were asked to indicate a preference for either of these sites and provide any other feedback. Optus also provided details of alternative sites considered and agreed to investigate alternative sites suggested by the community.

Refer to Appendix H for Optus Curl Curl Community Consultation Letter and Feedback Form

Figure 17 - Properties included in the letterbox drop for the community information session (highlighted green)

ADVERTISEMENT

Community Consultation for a Proposed Optus Mobile Phone Facility – Curl Curl

Background

Optus is proposing to install a new mobile phone facility within the Curl Curl area to improve Optus mobile network coverage and capacity. This is part of our plan to remove the existing Optus facility at McKillop Park Freshwater.

How can you have your say?

We are seeking your feedback to help us identify which location the community would prefer.

We appreciate the scenic values of this area and have factored this is into our site investigations. However, the natural features of the Curl Curl area, namely the hills and trees, which can obstruct mobile phone signals, make it challenging to provide consistent network performance across the area.

Optus have identified two potential locations for a facility and are seeking community feedback on these potential sites. The two options are:

A – Replacement of a floodlight pole located at Abbott Road Field No 5, North Curl Curl

B – New monopole located at Dee Why RSL Bowling Club, North Curl Curl

Please note photomontages are a representation only. Any installation may vary slightly in size, shape and/or colour

Feedback and next Steps

Optus will be hosting two information kiosk sessions which will be attended by representatives from Optus and Urbis (Optus' Town Planning and Property Consultants). Also present at these sessions will be an independent expert on the current Australian Standards relating to Electromagnetic Energy Emissions from mobile phone facilities.

We welcome all members of the local community to come and review the proposals and discuss with us your ideas and thoughts on this proposal.

Information sessions will be held on Thursday 26th November from 3pm – 5pm and 6:00pm – 8:30pm at Curl Curl Sports Centre, Abbott Rd, North Curl Curl.

Further information and comments on the proposal can be sent to Jon Mills at curlcurlconsultation@urbis.com.au or Urbis Pty Ltd, GPO Box 5[illegible] by [illegible] prior to 4th December 2015.

OPTUS

urbis

Figure 18 - Properties included in the letterbox drop for the community information session

7.2.1. Summary of Community Feedback

The feedback provided can be summarised as follows:

- 166 responses in total
- 25 ticked for Candidate A
- 9 ticked for Candidate B
- 6 supported either A or B
- 109 ticked for neither site
- 25 stated support for any telecommunications facility

- 122 stated an objection to any telecommunications facility

Negative feedback received related to perceived effects from EME and proximity to Curl Curl Public School (which is located 350m away from the proposed location of candidate A). There following concerns were also raised:

- Visual impact – members of the community stated that the visual impact is unacceptable. Many community members are already unhappy with the existing flood light poles in John Fisher Park and consider any height increase to be unacceptable
- Environmental impact – members of the community informed Optus that they were involved in the cleaning up of the lagoon and that the proposal would ruin the natural environment. Option B has a large number of protected species nearby.
- Existing Optus coverage – some community members are existing Optus customers but are opposed to the proposed telecommunications facility, stating that there are no issues with Optus coverage in the area.
- Telstra/Vodafone coverage – members of the community stated that Telstra and Vodafone have good coverage and Optus should co-locate with them or do what they are doing to get coverage.
- Co-Location - members of the community are concerned that if the proposed telecommunications facility is installed, other carriers will seek to co-locate, increasing visual impact and EME emissions.

There was a notable support from community members residing in the south side of Curl Curl Lagoon where respondents stated that that Optus coverage is unreliable and it is necessary to be outdoors to make calls because in-building coverage is poor.

Alternative locations were suggested by the community (Candidates E, F, G and H) and the community also requested the reinvestigation of Candidate D.

On 25th February 2016, Urbis met with Council Officers (Asset Management Officer – Foreshores and Senior Property Officer) on-site to discuss the newly proposed candidates. Council staff raised concerns regarding areas of Curl Curl having previously being used for landfill, as well as community attitude towards EME emissions and visual impact. Council suggested a light pole in the car park area of North Curl Curl Surf Lifesaving Club (Candidate G) and Harbord Diggers Club (Candidate H) as alternative locations.

These locations were subsequently investigated and details are provided in the site selection section of this report (E had previously been examined and was again discounted due to its potential visual impact on Curl Curl Beach and the coastline).

A development application was lodged with Northern Beaches Council in April 2017 and was advertised in accordance with the Warringah Development Control Plan.

This development application received 139 submissions, 133 against and 6 in support along with a petition with 839 signatures opposing the development. The objections were generally in regards to impacts from EME and impacts upon visual amenity.

This was determined at an independent assessment panel meeting and a notice of refusal was issued on 27th July 2019. This was assessed due to having unacceptable impacts with regard to the natural and built environments and the social impacts in the locality mainly in regards to its impact visually.

Following this Optus reviewed the site and determined that the swap out off a light pole on the north side of the lagoon would be the most appropriate and only viable solution, as originally proposed in 2015. This proposal is deemed to have the least visual impact and does not introduce any additional vertical elements to the area and being collocated onto existing infrastructure would be consistent with the zooming objectives for the site.

Optus have consulted with Northern Beaches Council prior to making this application via 2 pre lodgement meetings (late 2019 and April 2020) and meetings and discussions with other Council stakeholders and the Department of Industry, Planning and Environment. Feedback received has been incorporated into the development application forming some of the technical studies supporting this application. At the pre lodgement meeting in April 2020, it was indicated that the height of the facility was still inconsistent to the adjacent flood light poles and consideration should be given to lowering the height. The issue around this was meeting OH&S requirements to maintain the floodlights which had to be at 22m in height as per the floodlight plans for the area.

Optus therefore considered this problem and the feedback and in conjunction with maintenance protocols with council (which include shutting down the site in times of Council maintenance on the pole). Optus therefore were able to reduce the gap from the top of the pole where the floodlights were located (at 22m) and the bottom of the antennas by 2.6m reducing the overall height from 28.3m to 25.7m.

Following the consultation with multiple stakeholders over the past 5 years, it's clear that Optus has taken a lot of time and effort to get to the stage to lodge a development application that we feel addresses all of the stakeholder and community feedback received to date. Given the levels of consultation for this location previously; Optus feel that lodging the development application and allowing it to go through the statutory notification process is the most appropriate step at this stage rather than any additional consultation and have thus sought to lodge this development application on this basis.

8. EME & HEALTH

Optus acknowledges some people are genuinely concerned about the possible health effects of electromagnetic energy (EME) from mobile phone base stations and is committed to addressing these concerns responsibly. Optus, along with the other mobile phone carriers, must strictly adhere to Commonwealth Legislation and regulations regarding mobile phone facilities and equipment administered by the Australian Communications and Media Authority (ACMA).

In 2003 the ACMA adopted a technical standard for continuous exposure of the general public to RF EME from mobile base stations. The standard, known as the Radiocommunications (Electromagnetic Radiation – Human Exposure) Standard 2003, was prepared by the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) and is the same as that recommended by ICNIRP (International Commission for Non-Ionising Radiation Protection), an agency associated with the World Health Organisation (WHO). Mobile carriers must comply with the Australian Standard on exposure to EME set by the ACMA.

The Standard operates by placing a limit on the strength of the signal (or RF EME) that Optus can transmit to and from any network base station. The general public health standard is not based on distance limitations, or the creation of 'buffer zones'. The environmental standard restricts the signal strength to a level low enough to protect everyone at all times. It has a significant safety margin, or precautionary approach, built into it.

The use of the Standard in development applications involving Telecommunications Facilities was tested and supported by decisions made in the New South Wales Land and Environment Court, having particular regard to Telstra Corporation Limited Vs Hornsby Shire Council [2006] NSWLEC 133 which tested whether the proposed EME levels will harm the health and safety of the residents.

The Land and Environment Court ruled in favour of Telstra, on the basis that the Standards set by the ACMA are scientifically proved & robust. The Court stated that Councils should adopt these standards when measuring and determining EME levels, given that it is the ACMA that has the responsibility for ensuring exposure limits do not adversely affect the heath and amenity of the community.

The Court further stated that it was not appropriate for the Court to set aside or disregard the existing safety standard nor is it appropriate for the Court to pioneer its own standards. The Court ruled it was appropriate for safety standards to be set by authorities with special expertise, such as ARPANSA.

In order to demonstrate compliance with the standard, ARPANSA created a prediction report using a standard methodology to analyse the maximum potential impact of any new telecommunications facility. Carriers are obliged to undertake this analysis for each new facility and make it publicly available.

Importantly, the ARPANSA-created compliance report demonstrates the maximum signal strength of a proposed facility, assuming that it's handling the maximum number of users 24 hours a day.

In this way, ARPANSA requires network carriers to demonstrate the greatest possible impact that a new telecommunications facility could have on the environment, to give the community greater peace of mind. In reality, base stations are designed to operate at the lowest possible power level to accommodate only the number of customers using the facility at any one time. This design function is called 'adaptive power control' and ensures that the base station operates at minimum, not maximum, power levels at all times.

The maximum environmental EME level from the site at Curl Curl, once it is operational, has been estimated as being will within the ACMA mandated exposure limit (refer to Appendix E). This maximum level is extremely low and the maximum environmental EME level from the site, once it is operational, will comply with the ACMA mandated exposure limit. Optus complies with the public health and safety standard by a significant margin.

A snapshot of calculated EME levels at this site

There are currently no existing radio systems for this site.

The maximum EME level calculated for the **proposed** changes at this site is

1.42%

out of 100% of the public exposure limit, 159 m from the location.

EME levels with the proposed changes

Distance from the site	Percentage of the public exposure limit
0-50 m	0.67%
50-100 m	0.49%
100-200 m	1.42%
200-300 m	1.2%
300-400 m	0.55%
400-500 m	0.31%

Figure 19 - A section of the EME report prepared for the proposed telecommunications facility

Optus relies on the expert advice of national and international health authorities such as the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) and the World Health Organisation (WHO) for overall assessments of health and safety impacts. The WHO advises that all expert reviews on the health effects of exposure to radiofrequency fields have concluded that no adverse health effects have been established from exposure to radiofrequency fields at levels below the international safety guidelines that have been adopted in Australia.

Optus has strict procedures in place to ensure its mobile phones and base stations comply with these guidelines. Compliance with all applicable EME standards is part of Optus' responsible approach to EME and mobile phone technology.

Refer to the EME Report in Appendix E for further information.

9. KEY PLANNING FRAMEWORK

An assessment of the proposal has been undertaken in accordance with the following legislation, policies and plans of management.

- Telecommunications Act 1997
- Telecommunications (Low-impact Facilities) Determination 2018
- Environment Protection and Biodiversity Conservation Act 1999
- Environmental Planning and Assessment Act 1979
- State Environmental Planning Policy (Infrastructure) 2007
- State Environmental Planning Policy No 55 – Remediation of Land
- State Environmental Planning Policy (Coastal Management) 2018
- National Parks & Wildlife Act 1974
- Heritage Act 1977
- Threatened Species Conservation Act 1995
- Contaminated Land Management Act 1997
- NSW Telecommunications Facilities Guideline including Broadband ("Guideline") 2010
- State Environmental Planning Policy No 44 – Koala Habitat Protection
- Crown Lands Act 1989 No 6
- Warringah Local Environmental Plan 2011
- Warringah Development Control Plan 2011
- John Fisher Park Plan of Management
- Warringah Council Coastal Lands Plan of Management

9.1. COMMONWEALTH LEGISLATION

9.1.1. Telecommunications Act 1997

The Telecommunications Act 1997 (the Act) came into operation on 1st July 1997. The Act provides a system for regulating telecommunications and the activities of carriers and service providers. Under the Act, telecommunications carriers are no longer exempt from State and Territory planning laws except in three limited instances:

1. There are exemptions for inspection of land, maintenance of facilities, installation of 'low impact facilities', subscriber connections and temporary defence facilities. These exemptions are detailed in the Telecommunications (Low-impact Facilities) Determination 2018 and the Amendment No. 1 of 2018 and these exceptions are subject to the Telecommunications Code of Practice 2018;

2. A limited case-by-case appeals process exists to cover installation of facilities in situations of national significance; and

3. There are some specific powers and immunities from the previous Telecommunications Act 1991.

9.1.2. Telecommunications (Low-impact Facilities) Determination 2018 (Amendment No.1 of 2018)

The Telecommunications (Low-impact Facilities) Determination 2018 came into effect on 2 March 2018. The Determination contains a list of telecommunications facilities that the Commonwealth Government will continue to regulate. These are facilities that are essential to maintaining telecommunications networks and are unlikely to cause significant community disruption during their installation or operation. These facilities are therefore considered to be 'low-impact' and do not require planning approval under state or territory laws and are also exempt from the operation of state laws in relation to tenancy.

The proposed Optus telecommunications facility is not consistent with the provisions outlined in Part 3 of the Determination and therefore cannot be considered a low-impact facility. Proposed installations that do not fall under the Determination require approval under state planning legislation unless they are exempt development under an environmental planning instrument.

9.1.3. Environment Protection & Biodiversity Conservation Act 1999

The Environment Protection and Biodiversity Conservation Act commenced on 16th July 2000. It introduced a new role for the Commonwealth Government in the assessment and approval of development proposals where those proposals involve actions that have a significant impact on matters of National Environmental Significance, the environment of Commonwealth owned land and actions carried out by the Commonwealth Government.

9.1.3.1. Matters of National Environmental Significance

Under the EPBC Act, actions that have, or are likely to have, a significant impact on a 'matter of national environmental significance' requires approval from the Australian Government Minister for the Environment (the Minister). The Minister will decide whether assessment and approval is required under the EPBC Act.

An EPBC Act Protected Matters search has been undertaken to identify Matters of National Environmental Significance which occur or relate to the proposed development (refer to Appendix I). The result of the EPBC Act Protected Matters Report are listed in Table 3. It should be noted that a minimum buffer of 1 kilometre must be used for EPBC Act Protected Matters Report.

An assessment as to whether the proposed works will have a significant environmental impact has been undertaken in accordance with the EPBC Act 'Significant Impact Guideless 1.1' and is provided in the remainder of this section.

Table 3 - EPBC Matters of National Environmental Significance

MATTER OF NATIONAL ENVIRONMENTAL SIGNIFICANCE	MATTERS IDENTIFIED	ARE WORKS LIKELY TO HAVE A SIGNIFICANT IMPACT?
World heritage properties	None	No
National heritage places	None	No
Wetlands of international importance (listed under the Ramsar Convention)	None	No
Listed threatened species and ecological communities	Two (2) Threatened Ecological Communities Fifty-five (55) threatened fauna Eleven (11) threatened flora	No
Migratory species protected under international agreements	Fifty six (56) migratory species	No
Commonwealth marine areas	None	No
The Great Barrier Reef Marine Park	None	No
Nuclear actions (including uranium mines)	None	No
A water resource, in relation to coal seam gas development and large coal mining development	None	No

9.1.3.2. Listed Threatened Species and Ecological Communities

Two Listed Threatened Ecological Communities and 66 Listed Threatened Species were listed in the EPBC Act Protected Matters Report.

An ecologist attended the site; however, no Assessment of Significance was undertaken for EPBC Act listed species due to the lack of suitable habitat within the study area. No Assessments of Significance were undertaken for EPBC Act listed vegetation communities due to the highly disturbed and revegetated nature of the vegetation within the study area.

Refer to the Flora and Fauna Assessment and Biodiversity Management Plan Appendix N

9.1.3.3. Ecological Sustainable Development

Volume 1, Part 1, Clause 3A of the *EPBC Act 1999* provides Principles of Ecologically Sustainable Development (ESD). These principles seek to promote the effective integration of economic, environmental, social and equity considerations in decision-making processes. Table 4 contains an assessment of how the ESD Principles were considered as part of the proposed development:

Table 4 - Assessment of Ecological Sustainable Development

PRINCIPLE	CONSIDERATION
Decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations.	Visual impact is the sole environmental concern associated with the proposed telecommunications facility. This has been mitigated by its design, to be as minimally visually intrusive as possible in terms of height, size and amount of equipment whilst still performing its required functions. The facility is beneficial to the area in economic and social terms because it will provide improved telecommunications coverage to users in the area.
If there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.	There are no threats of serious or irreversible environmental damage. No environmental degradation will occur as a result of construction or operation of the proposed telecommunications facility.
The principle of inter-generational equity—that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations.	Services provided by the telecommunications facility support and facilitate use of the environment. Mobile phone services are vital in allowing the public to alert emergency services to natural disasters which can affect the environment, such as flooding.
The conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making.	The proposed telecommunications facility will have no impact upon biological and ecological diversity; no habitats will be removed or impacted upon as part of its construction.
Improved valuation, pricing and incentive mechanisms should be promoted.	None of the environmental attributes and features of the land will be impacted upon and none of the functions of the land will be inhibited. As a result and considering that mobile phone coverage will be improved in the area, it is considered that this development will add value to the area.

9.2. STATE LEGISLATION

9.2.1. State Environmental Planning Policy (Infrastructure) 2007

This SEPP was released in December 2007 with the purpose of simplifying planning controls for infrastructure developments and facilitating public consultation during the development assessment process. It also categorises 23 classes of infrastructure in an attempt to more efficiently deliver infrastructure and service facilities. 'Telecommunication and other communication facilities' have been categorised as a class of infrastructure, where a telecommunications facility has been defined as;

"(a) any part of the infrastructure of a telecommunications network, or

(b) any line, optical fibre, equipment, apparatus, tower, mast, antenna, dish, tunnel, duct, hole, pit, pole or other structure in connection with a telecommunication network."

Clause 115 Development permitted with consent allows for;

"(1) Development for the purposes of telecommunications facilities, other than development in Clause 114, may be carried out by any person with consent on any land."

Therefore the proposed telecommunication facility is consistent with the SEPP definition and would be considered as a development permitted with consent. In accordance with the development controls of this SEPP, it is necessary to submit a development application to the Department for an assessment of the proposed telecommunications facility.

The SEPP also contains operation principles in relation to telecommunications facilities. These principles are:

- Principle 1: A Telecommunications facility is to be designed and sited to minimise visual impact
- Principle 2: Telecommunications facilities should be co-located wherever practical
- Principle 3: Health standards for exposure to radio emissions will be met
- Principle 4: Minimise disturbance and risk, and maximise compliance

An assessment of how the proposed telecommunications facility has considered these principles is demonstrated in the tables in Appendix G. These principles have also been addressed throughout this report and it is considered that the proposed Optus facility complies with State Environmental Planning Policy (Infrastructure) 2007 and its operational principles.

9.2.2. State Environmental Planning Policy No 55 – Remediation of Land

This object of this SEPP is remediation of contaminated land. The subject site is known to have been a former landfill site. The site will be suitable in its current state for the purpose of the development of a telecommunications facility. Remediation is not necessary for the development (the site is already used for recreation purposes).

As required by SEPP 55, a preliminary site investigation has been undertaken (refer to Appendix S) The preliminary site investigation recommends that:

- An Acid Sulfate Soils Management Plan needs to be commissioned prior to commencement of excavation work. Details are available in the Acid Sulfate Soils report issued separately (Ref: CUAB-19-PASSA);
- If required, excavated soils can be re-used on-site subject to treatment and testing of the soils in accordance with an Acid Sulfate Soils Management Plan as per Recommendation 1 above;
- Should any evidence become apparent during site/earth works that asbestos or asbestos fragments (or other contaminants including hydrocarbon odours) are present in soils then appropriate actions should be undertaken in accordance with relevant guidelines and regulations;
- Any soils imported to the Site must be validated as suitable for Public Open Space land use; and
- On-site soils meet the contamination criteria for classification as General Solid Waste. All soils to be taken offsite must take into the presence of Potential Acid Sulfate Soils at the Site prior to being disposed of to a suitable landfill facility

Refer to the Preliminary Site Investigation in Appendix S

9.2.3. State Environmental Planning Policy (Coastal Management) 2018

The location of the proposed telecommunications facility is within the SEPP (Coastal Management) 2018 Land Application area, the 'Coastal Environmental Area', the 'Coastal Use Area' and Curl Curl Lagoon is listed in Schedule 1 under 'Other coastal lakes'.

The development controls for 'Coastal Environment Areas' and the 'Coastal Use Area' are addressed in the remainder of this section.

Figure 20 - SEPP (Coastal Management) 2018 mapping

The 'Coastal Environment Areas' clause of the SEPP (Coastal Management) 2018 is as follows:

> ***13 Development on land within the coastal environment area***
>
> *(1) Development consent must not be granted to development on land that is within the coastal environment area unless the consent authority has considered whether the proposed development is likely to cause an adverse impact on the following:*
>
> *(a) the integrity and resilience of the biophysical, hydrological (surface and groundwater) and ecological environment,*
>
> *(b) coastal environmental values and natural coastal processes,*
>
> *(c) the water quality of the marine estate (within the meaning of the Marine Estate Management Act 2014), in particular, the cumulative impacts of the proposed development on any of the sensitive coastal lakes identified in Schedule 1,*
>
> *(d) marine vegetation, native vegetation and fauna and their habitats, undeveloped headlands and rock platforms,*

(e) existing public open space and safe access to and along the foreshore, beach, headland or rock platform for members of the public, including persons with a disability,

(f) Aboriginal cultural heritage, practices and places,

(g) the use of the surf zone.

(2) Development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that:

(a) the development is designed, sited and will be managed to avoid an adverse impact referred to in subclause (1), or

(b) if that impact cannot be reasonably avoided—the development is designed, sited and will be managed to minimise that impact, or

(c) if that impact cannot be minimised—the development will be managed to mitigate that impact

In response to the above:

- The surface and groundwater integrity and resilience would not be adversely impacted as significant excavations are not proposed.
- The development will be on land already developed as sports fields, is not located on the coast, and has a 20-metre buffer to the lagoon, therefore coastal environmental values and natural coastal processes would not be impacted
- The telecommunications facility would not use or produce water and measures would be put in place during construction to prevent any impacts.
- No impacts upon flora and fauna have been identified following assessments by an arborist and an ecologist. Recently planted native tubestock will be impacted during construction, however this will be replaced as identified in the landscape plan (refer to Appendix C).
- Access to public places would not be impacted. The outdoor unit will be secured and would be outside the perimeter of the sports fields behind the existing baseball mesh. The monopole will be in a similar position to the existing flood light pole to be replaced.
- An AHIMS search has been undertaken and the known sites have been mapped in detail (refer to section 9.2.4 for further details). These locations are at least 500 metres from the development footprint.
- The development footprint area is adjacent to a lagoon, rather than the coastline, and therefore there will be no impacts upon any surf zone

Considering the above response, no impacts upon land that is within the coastal environment area is expected.

The 'Coastal Use Area' clause of the SEPP (Coastal Management) 2018 is as follows:

14 Development on land within the coastal use area:

(1) Development consent must not be granted to development on land that is within the coastal use area unless the consent authority:

(a) has considered whether the proposed development is likely to cause an adverse impact on the following:

(i) existing, safe access to and along the foreshore, beach, headland or rock platform for members of the public, including persons with a disability,

(ii) overshadowing, wind funnelling and the loss of views from public places to foreshores,

(iii) the visual amenity and scenic qualities of the coast, including coastal headlands,

(iv) Aboriginal cultural heritage, practices and places,

(v) cultural and built environment heritage, and

(b) is satisfied that:

(i) the development is designed, sited and will be managed to avoid an adverse impact referred to in paragraph (a), or

(ii) if that impact cannot be reasonably avoided—the development is designed, sited and will be managed to minimise that impact, or

(iii) if that impact cannot be minimised—the development will be managed to mitigate that impact, and

(c) has taken into account the surrounding coastal and built environment, and the bulk, scale and size of the proposed development

In response to the above:

- Current access arrangements to the site would not be impacted
- Due to the slimline design of the monopole there would be minimal overshadowing given; this would be comparable to the flood light poles already existing at this site
- Visual amenity will not be significantly impacted (refer to section 9.3.4.8 for further details)
- An AHIMS search for Aboriginal objects has been undertaken and the identified items mapped. These known items are over 500 metres from the development area and thus would not be impacted (refer to section 9.2.4 for further details)
- No heritage items are located within 500 metres of the site (refer to section 9.3.1.2).
- The scale of the development is considered to be appropriate – it will not impede use of the recreation area as currently used and the monopole will appear similar to existing flood light poles at the site and in the area.

Considering the above response, no impacts upon land that is within the coastal environment area is expected.

9.2.4. National Parks & Wildlife Act 1974

The *National Parks and Wildlife Act 1974* (NPW Act) is the governing legislation concerning the operation, management and development of National Parks and natural conservation areas in NSW. The site at Curl Curl is not located within a National Park or land designated under the NPW Act.

9.2.4.1. Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW

A due diligence assessment has been undertaken to determine whether the works will impact on any Aboriginal objects or whether an Aboriginal Heritage Impact Permit (AHIP) is required. This assessment has been undertaken in accordance with the Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW (refer to Figure 21).

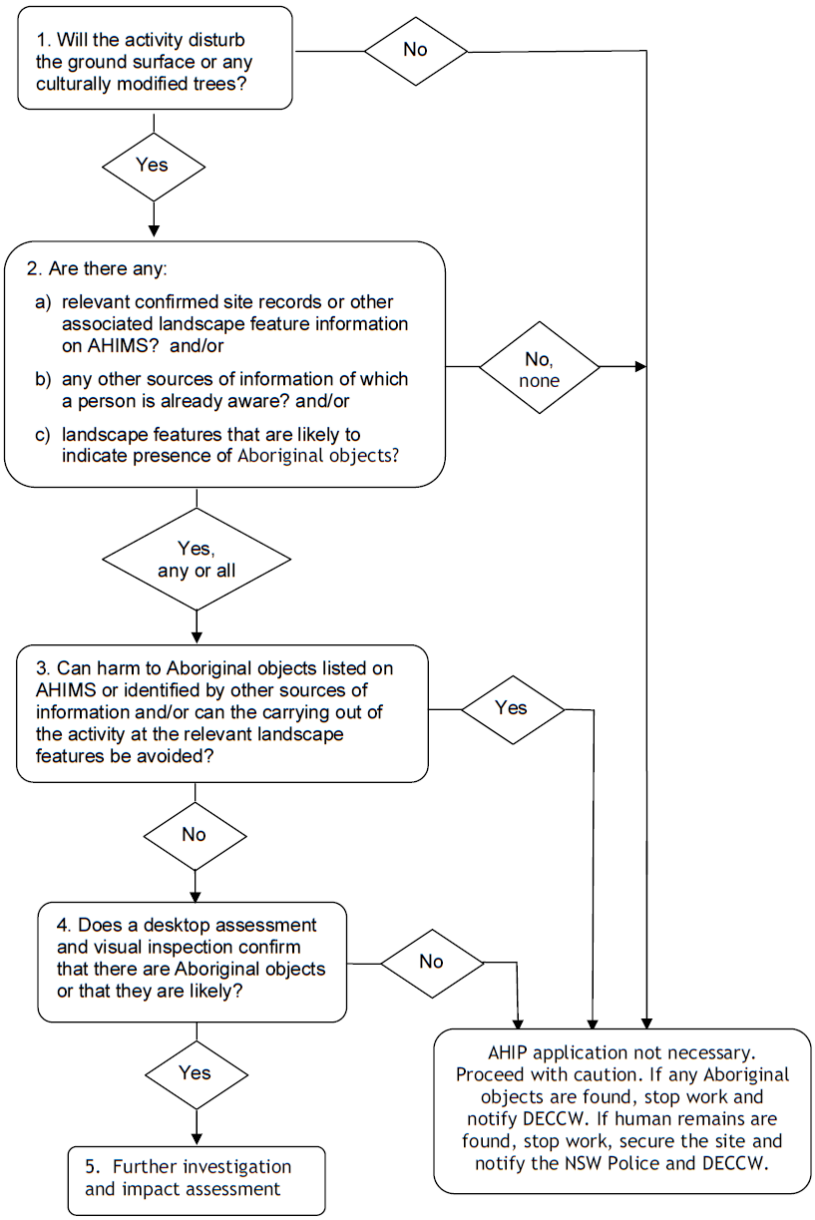


Figure 21 - Due Diligence Process (Source: NSW DECCW, 2010)

The Due Diligence assessment has been undertaken for the site at Curl Curl as follows:

1. *Will the activity disturb the ground surface or any culturally modified trees?*

The proposed construction of the telecommunications facility will result in disturbance to the ground surface however, significant disturbance to this site has already occurred. No trees will be impacted by the proposed works.

2. *Are there any:*

    a. *Relevant confirmed site records or other associated landscape feature information on AHIMS? And/or*

An AHIMS basic search identified four Aboriginal sites recorded within Lot 735 DP1167221 and six Aboriginal sites with a 50 metre buffer included (Refer to Appendix K). An extensive AHIMS search identified the locations of these six items (Refer to Figure 22).

    b. *Any other sources of information of which a person is already aware?*

There are no other sources of information with confirmed Aboriginal objects.

    c. *Landscape features that are likely to indicate presence of Aboriginal objects?*

The Due Diligence Code of Practice Guideline identifies ridge tops, ridgelines or headlands as landscape features that are likely to indicate the presence of Aboriginal objects. The site is located on disturbed flat land near the coast and contains none of these types of landforms.

3. *Can harm to Aboriginal objects listed on AHIMS or identified by other sources of information and/or can the carrying out of the activity at the relevant landscape features be avoided?*

Yes, the installation of the proposed facility will be on land where no Aboriginal heritage items were identified. As a result, an Aboriginal Heritage Impact Permit (AHIP) is not required and work can proceed with caution.

Figure 22 - Aboriginal Heritage Item Locations (AHIMS, 2016)

To conclude, the works can progress without the need for an AHIP. The proposed works will occur on an area of disturbed land which is 500m from the nearest identified item of Aboriginal heritage significance. There are no indications of the presence of Aboriginal objects other than those identified in Figure 22. Regardless, an Aboriginal Due Diligence Assessment has been undertaken (Refer to Section 9.2.4.1). The assessment concluded that no Aboriginal objects were located within the study area. No known Aboriginal objects or places will be impacted by the proposed works and the location of the proposed works is not within a highly sensitive area, though low potential does exist for unidentified sub surface deposits or hidden surface sites to occur.

9.2.5. Heritage Act 1977

The *Heritage Act 1977* makes provisions to conserve the State's environmental heritage. This Act provides for the identification and registration of items of State heritage significance, provides for the interim protection of items of State heritage significance, constitutes the Heritage Council of New South Wales and confers on it functions relating to the State's heritage. According to the State Heritage Register there are no State Heritage Items within proximity of the proposed telecommunications facility location.

9.2.6. Biodiversity Conservation Act 2016

According to the NSW Bionet Wildlife Atlas (refer to Appendix J), there are no threatened species within the site.

A site study was undertaken to confirm the above desktop findings. The flora and fauna assessment (refer to Appendix N) reports that the proposal is unlikely to result in a significant impact to threatened ecological communities, threatened flora and threatened fauna likely to be found within the study area (as a result of the recent clearing of exotic vegetation and recent revegetation with tubestock-sized species at the site).

As such the proposed works are unlikely to impact upon species to which this Act applies.

Further discussion regarding flora and fauna impacts are discussed in sections 9.3.2.10 to 9.3.2.14 of this report.

9.2.7. Contaminated Land Management Act 1997

John Fisher Park appears on the 'List of NSW contaminated sites notified to EPA' but not the 'Contaminated Land: Record of Notices'. Sites on the 'List of NSW contaminated sites notified to EPA' have been notified to the EPA for investigation.

According to the Environment Protection Authority (EPA), the 'Activity that caused contamination' at John Fisher Park is 'Landfill', however the EPA site management class for John Fisher Park states that regulation under the *Contaminated Land Management Act 1997* is not required (refer to Figure 23). This means that the EPA has completed an assessment of the contamination and decided that regulation under the Contaminated Land Management Act 1997 is not required.

Suburb/City	Site description and address	Activity that caused contamination	EPA site management class see explanations
CURL CURL	John Fisher Park Corner Harbord and Abbott ROADS	Landfill	Regulation under CLM Act not required

Figure 23 - List of NSW Contaminated sites Notified to EPA (EPA, 2016)

An environmental management plan for John Fisher Park was produced in April 2013 entitled *Final Environmental Management Plan, Warringah Council, John Fisher Park, North Curl Curl, NSW* and in its summary, it states that ongoing management of the site will be required due to contamination issues.

Appropriate measures to manage excavated materials will be implemented during construction, set through a condition of consent of an approval issued by council.

A Preliminary Site Investigation has been undertaken (refer to Appendix S) and following on from which recommendations provided (refer to section 9.2.1).

9.2.8. State Environmental Planning Policy No 44 – Koala Habitat Protection

This SEPP applies to the former Warringah Council area (within which the site is located) and to land with an area greater than one hectare. Lot 7356 DP 1167221 is 22.83 hectares, therefore SEPP 44 applies. It should be noted however, that the development footprint will be significantly smaller than one hectare, however.

No plan of management has been produced by Warringah Council or Northern Beaches Council which addresses the existence of koalas in the former Warringah Council area. The John Fisher Management Plan lists 95 species of fauna as recorded on site or listed as likely to occur. This list contains birds, mammals, reptiles, frogs, and fish; koalas are not contained in this list.

A Flora and Fauna Assessment undertaken on site reported that koalas are not likely to occur in the study area due to there being no suitable habitat and a lack of feed trees.

9.2.9. Crown Lands Act 1989 No 6

As the proposed development is to be located on Crown land, the *Crown Lands Act 1989 No 6* must be addressed. The principles of Crown land management contained in *Part 1 Preliminary, 11 Principles of Crown land management* are:

(a) that environmental protection principles be observed in relation to the management and administration of Crown land

The Principles of Ecologically Sustainable Development (ESD) of the *EPBC Act 1999* are addressed in Table 4

(b) that the natural resources of Crown land (including water, soil, flora, fauna and scenic quality) be conserved wherever possible

The flora, fauna, soil, water and scenic quality of this site have been assessed in detail:

- Refer to section 9.3.4.1 for further details regarding flora and fauna,
- Refer to section 9.3.4.2 for further details regarding soils

- Refer to section 9.3.4.8 for and the visual impact assessment in Appendix L for further details regarding scenic quality

(c) that public use and enjoyment of appropriate Crown land be encouraged

The site is currently used for the purposes of public recreation and the proposed development will not interfere with this in any way. Access to the park will not be impeded, the facility footprint will be relatively small with the monopole in a similar position to the existing flood light pole to be replaced and the outdoor cabinet behind the existing baseball mesh, both near the perimeter of the site.

Improved mobile network coverage in this area will facilitate improved communications for users of the park.

(d) that, where appropriate, multiple use of Crown land be encouraged

The use of this park is for public recreation and the proposed telecommunications facility will compliment this without causing any detrimental impacts.

(e) that, where appropriate, Crown land should be used and managed in such a way that both the land and its resources are sustained in perpetuity

As stated above in *(c)*, the proposed development will not interfere with the current use or the resources of the park in any way. The resources of this land are its open space, public conveniences and the sports facilities. The proposed facility has been positioned in order to avoid any impacts upon these.

(f) that Crown land be occupied, used, sold, leased, licensed or otherwise dealt with in the best interests of the State consistent with the above principles

The proposed development is in the interests of the State and consistent with the listed principles. The current use of the land will not be impeded, and the park and surrounding area will gain improved mobile communications services. There will be some visual impact, but the impacts are considered acceptable given the lack of alternative viable locations.

9.2.10. Water Management Act 2000 No 92

A Controlled Activity Approval from NSW Office of Water is required as the development location is within 40 metres of the bank of the lagoon. An 'Application for a Controlled Activity Approval for works on waterfront land' will be submitted to the NSW Department of Primary Industries if approval is granted by Council and it is our expectation that this requirement would be conditioned into the development consent accordingly.

Refer to Appendix T for a copy of the application form.

9.3. SECTION 4.15 ASSESSMENT

This Statement of Environmental Effects provides a summary of the matters for consideration set out in Section 79C of the *Environmental Planning and Assessment Act 1979*. This assessment demonstrates that the development will have minor impacts and is a suitable use for the subject site.

9.3.1. Any Environmental Planning Instruments: Warringah Local Environmental Plan 2011

The site is within the former Warringah Council area and the Warringah LEP 2011 applies.

9.3.1.1. Land Use Zoning (Clause 2.1)

The proposed location of the telecommunications facility is within an RE1 Public Recreation zone (Refer to Figure 24).

Figure 24 - Land Use Zones in the Warringah Council Area (Source: Warringah Council, 2015)

In this zone, telecommunications facilities are not permitted without consent nor permitted with consent. Therefore telecommunications are considered to be prohibited in the proposed location under the Warringah LEP 2011. However as outlined in section 9.2.1 of this report, Part 3, Division, Clause 115 of the NSW State Environmental Planning Policy (Infrastructure) 2007 states:

> *(1) Development for the purposes of telecommunications facilities, other than development in clause 114 or development that is exempt development under clause 20 or 116, may be carried out by any person with consent on any land*

As SEPP (Infrastructure) 2007 prevails over the Warringah LEP 2011 it is possible to build a telecommunications tower on land designated RE1 Public Recreation with consent from Northern Beaches Council.

The objectives of the RE1 zone are:

- *To enable land to be used for public open space or recreational purposes.*

The subject site is currently used as public open space and for recreational use. The construction of the proposed telecommunications facility would be on the perimeter of the fields, replacing an existing light pole (but retaining the lighting use) and associated infrastructure and as such would not prevent or impede the ongoing use of the park. The pole being located in the same location with an added duel use of telecommunications providing mobile phone and internet coverage enhancing the recreational use and ability to use the park and increasing safety of the use in ensuring coverage is available without providing new structure or sacrificing existing lighting.

- *To provide a range of recreational settings and activities and compatible land uses.*

The proposed telecommunications facility will complement existing and future use of the site as a recreation setting and for activities, by providing improved network coverage for Optus users visiting the park, reliable coverage in at times of peak usage and reliable means of contact with emergency services for all mobile users.

- *To protect and enhance the natural environment for recreational purposes.*

There would be no overall impact to the natural environment would as a result of the proposed development. Recently planted native tubestock will be impacted during construction, however this will be replaced as identified in the landscape plan (refer to the landscape plan in Appendix C and the flora and fauna report in Appendix N).

• *To allow development that does not substantially diminish public use of, or access to, public open space resources.*

The location of the development footprint of the proposed telecommunications facility has been selected to ensure access to and use of the park for recreation purposed is unimpeded.

• *To provide passive and active public open space resources, and ancillary development, to meet the needs of the community.*

The proposed telecommunications facility will not unnecessarily impede public open space and is considered an ancillary development, providing a co-located lighting and telecommunications services to the site and area.

9.3.1.2. Heritage Conservation (Clause 5.10)

As indicated in section 5, the land parcel in which the telecommunications facility is proposed (Lot 7356 DP1167221) is spread over a large area and split into a number of separate parts, in which there are locally listed heritage items. These heritage items, item number in Schedule 5 of the Warringah LEP 2011 and their approximate distance from the location of the proposed telecommunications facility are as follows:

- Coastal Cliffs – Item C 10 (590m)
- WW1 Obelisk – Item I 149 (650 metres)
- South Curl Curl Pool (900 metres)

As indicated above, none of the heritage items are located near to the location of the proposed telecommunications facility therefore there will be no impact and consent will not be required under this clause.

The objectives of *Part 5.10 Heritage Conservation* of the Warringah LEP 2011 are:

(a) to conserve the environmental heritage of Warringah

The environmental heritage will be conserved, considering the specific location of the proposed telecommunications facility. There is a separation greater than 500m to the area of the nearest heritage item, the coastal cliffs (Refer to Figure 25).

(b) to conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, settings and views

As identified, there are no heritage items in the vicinity of the development. The potential for visual impact was considered in the design of the proposed telecommunications facility. The overall height of the structure has been reduced to that which still allows it to operate and achieve its coverage objectives.

The facility will be strategically sited, replacing an existing flood light pole adjacent to existing and newly planted trees to provide visual screening. As a result, there will not be significant impact upon any views. (Refer to the Visual Impact Statement in Appendix L for further information).

(c) to conserve archaeological sites

No archaeological sites have been identified in the vicinity of the site.

(d) to conserve Aboriginal objects and Aboriginal places of heritage significance.

The Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW has been followed (refer to section 9.2.4.1). The outcome of this assessment is that an AHIP is not required for works to proceed.

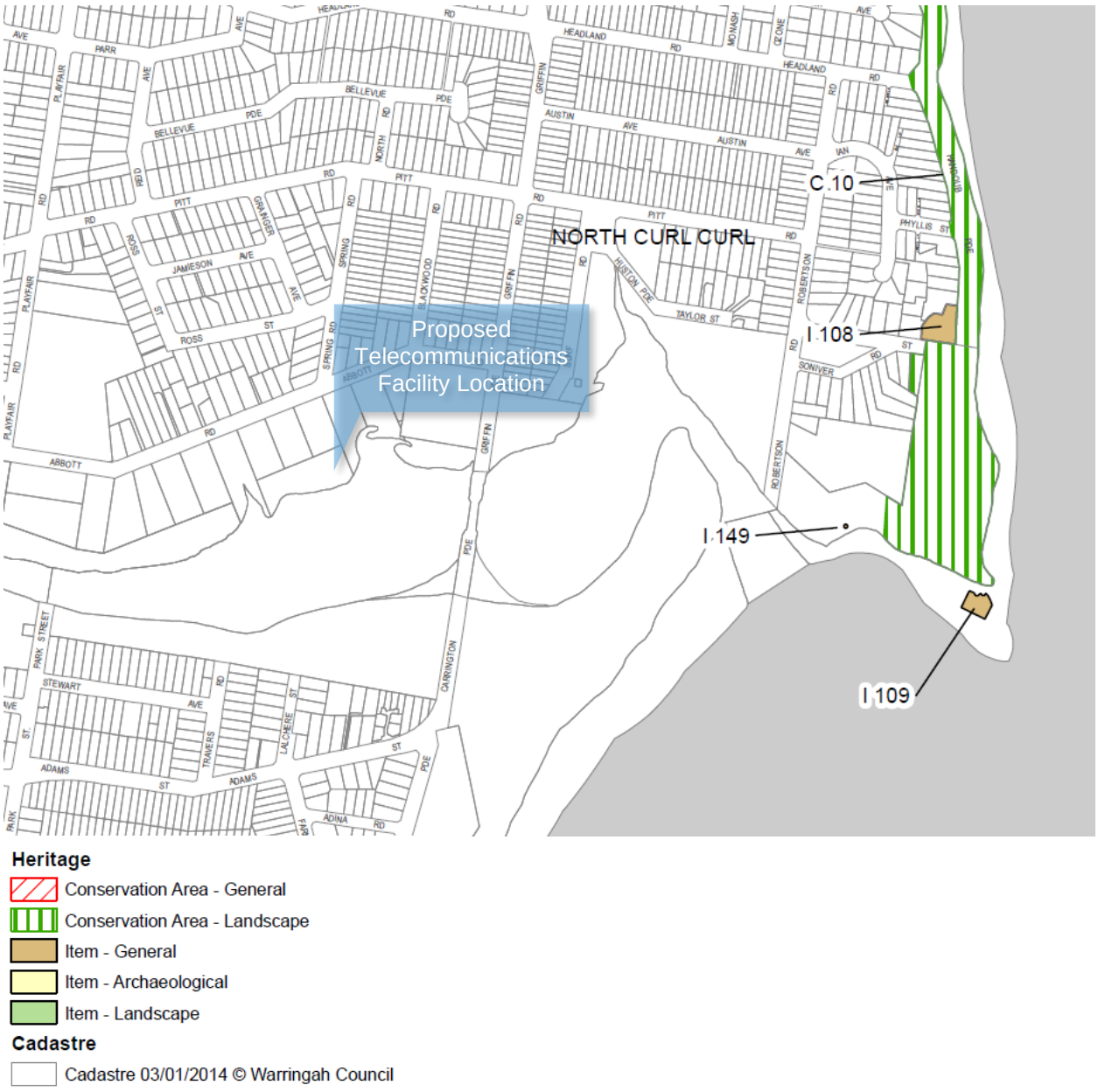


Figure 25 - Location of the Coastal Cliffs and WW1 Obelisk Heritage Items (Source: Warringah Council, 2014)

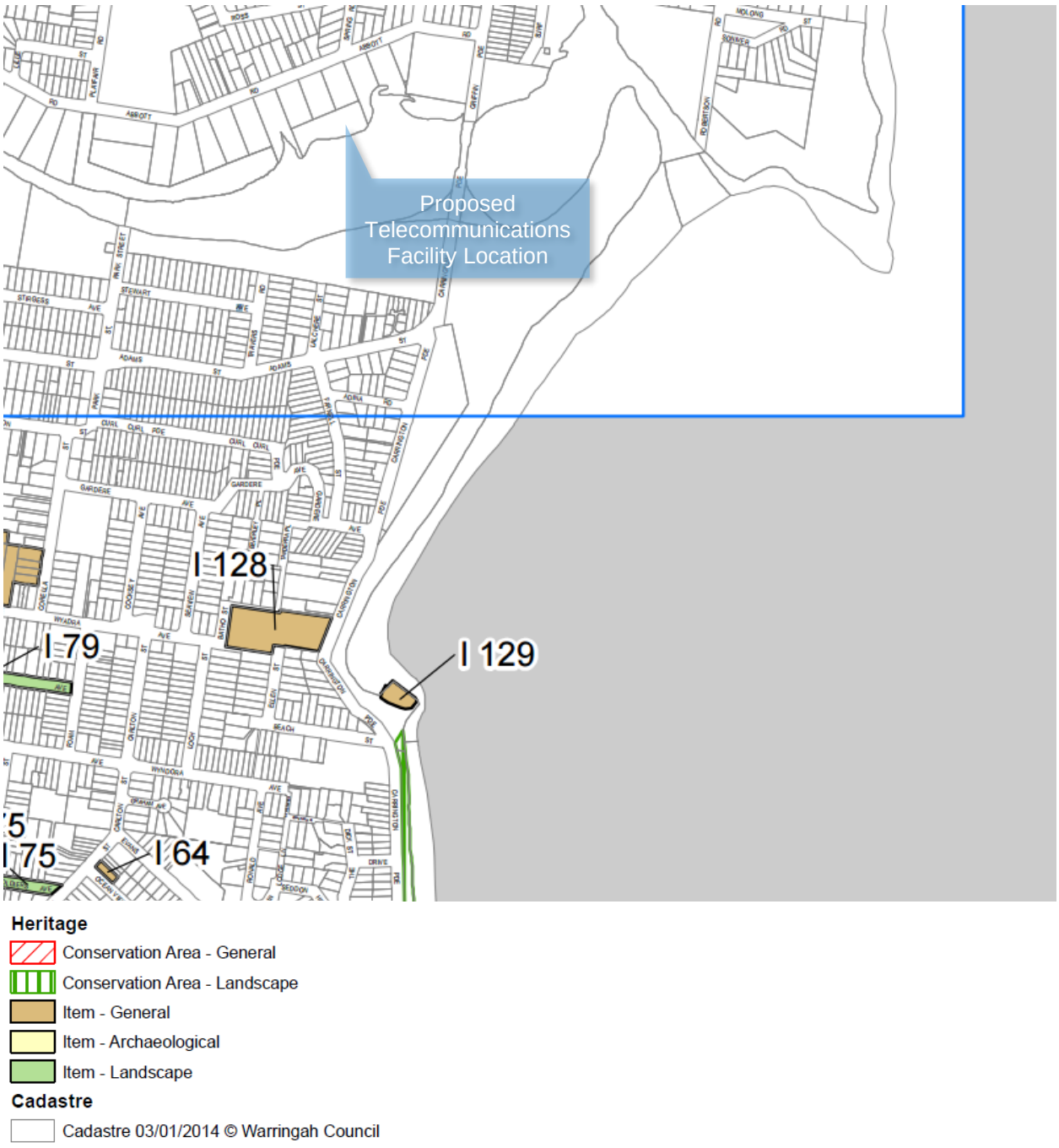


Figure 26 - Location of the South Curl Curl Pool Heritage Item (Source: Warringah Council, 2014)

9.3.1.3. Acid Sulfate Soil (Clause 6.1)

The location of the proposed telecommunications facility is within an Acid Sulfate Soil Class 3 area. Item 6.1 (2) states that for class 3 land, development consent is required for:

- *Works more than 1 metre below the natural ground surface*
- *Works by which the water table is likely to be lowered more than 1 metre below the natural ground surface.*

Given the above, a Preliminary Acid Sulfate Soils Assessment was undertaken. The recommendation of the asssessment is that an Acid Sulfate Soil Management Plan is developed and implemented during construction works. This can be stipulated as a condition of development approval.

Refer to Appendix R for the Preliminary Acid Sulfate Soils Assessment

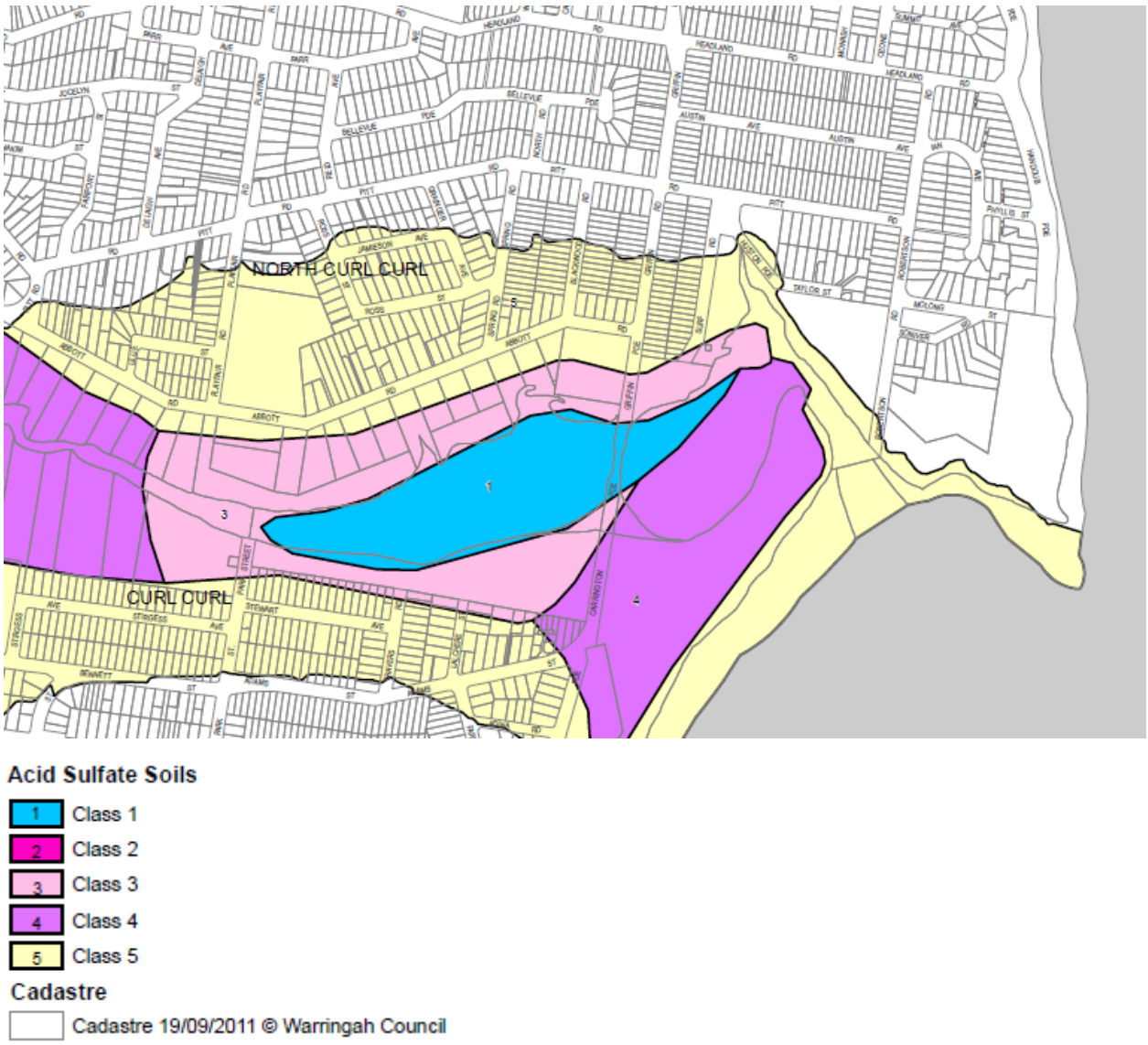


Figure 27 - Acid Sulfate Soil in the Warringah Council Area (Source: Warringah Council, 2011)

9.3.1.4. Earthworks (Clause 6.2)

Earthworks (Defined as excavation or filling) will be undertaken in order to create foundations for the new monopole. Development consent is required for earthworks Section 6.2 (3) of the LEP states:

> *(3) Before granting development consent for earthworks, the consent authority must consider the following matters:*
>
> *(a) the likely disruption of, or any detrimental effect on, existing drainage patterns and soil stability in the locality*

The proposed works will not significantly alter the surface topography and the surface area of the proposed structures are small, therefore drainage patterns will be unaffected. Geotechnical investigations were undertaken at the site and it was reported that following onsite testing, it is not expected that the site will be affected by slope stability issues.

> *(b) the effect of the proposed development on the likely future use or redevelopment of the land*

The site is unlikely to be redeveloped from its current use in the future as it an area of public recreation (RE1 Zone) and is an important and valued community facility. The telecommunications monopole will replace an existing lighting pole and the outdoor cabinet will be placed behind the baseball mesh and thus will avoid impacting upon use of the park. Due to its small footprint and positioning the proposed telecommunications facility will not restrict the installation of any future recreation equipment or maintenance to the reserve.

> *(c) the quality of the fill or the soil to be excavated, or both*

Any soils imported to the Site must be validated as suitable for Public Open Space land use. If required, excavated soils can be re-used on-site subject to treatment and testing of the soils in accordance with an Acid Sulfate Soils Management Plan (Refer to the Preliminary Site Investigation inclusive of Supplementary Sampling & Waste Classification in Appendix S for further information).

(d) the effect of the proposed development on the existing and likely amenity of adjoining properties

The nearest adjoining properties are approximately 100m away and amenity would not be impacted by earthworks required for the proposed development.

(e) the source of any fill material and the destination of any excavated material

A waste management plan has been prepared and indicates the proposed location for excavated soil and construction waste (Refer to the construction waste management within the site plans in Appendix B and the Waste Management Plan in Appendix O). An Acid Sulfate Soils Management Plan before construction commences. Disposal of excavated natural material will be managed in accordance with Part 4 of the NSW EPA waste classification guidelines and disposed of at a landfill approved to receive PASS (refer to Preliminary Site Investigation inclusive of Supplementary Sampling & Waste Classification in Appendix S).

(f) the likelihood of disturbing relics

The nearest known heritage item of any type identified is over 500 metres away from the location of the proposed telecommunications facility therefore these will not be disturbed. It is unlikely that there are undiscovered relics within the works area, however the necessary protocols will be followed if anything is identified during works.

(g) the proximity to and potential for adverse impacts on any watercourse, drinking water catchment or environmentally sensitive area

The nearest body of water is Curl Curl Lagoon. The telecommunications facility will not produce any waste products once operational therefore there will not be any impacts upon any nearby bodies of water. A soil and erosion plan and a waste management plan will be implemented during the construction phase to prevent any impacts.

Refer to Preliminary Site Investigation inclusive of Supplementary Sampling & Waste Classification in Appendix S.

Refer to the Geotechnical Investigation in Appendix Q for further information.

9.3.1.5. Flood Planning (Clause 6.3)

This clause states that development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that the development:

(a) is compatible with the flood hazard of the land, and

(b) is not likely to significantly adversely affect flood behaviour resulting in detrimental increases in the potential flood affectation of other development or properties, and

(c) incorporates appropriate measures to manage risk to life from flood, and

(d) is not likely to significantly adversely affect the environment or cause avoidable siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses, and

(e) is not likely to result in unsustainable social and economic costs to the community as a consequence of flooding

According to the Flood Planning maps in the Warringah DCP 2011, the site is within a low flood risk planning precinct and a medium flood risk planning precinct (Refer to Figure 33 and Figure 34).

The facility will be designed to be compatible with the low flood risk, with the outdoor cabinet being installed on an elevated platform. Considering the type of development and its relatively small footprint, it is not likely to impact upon existing flood risk.

9.3.1.6. Development on Sloping Land (Clause 6.4)

The location is designated as Area A landslide risk land (slope of <5°) (Refer to). *Part 6.4 Development on Sloping Land (3)* states:

> *(3) Development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that:*
>
> *(a) the application for development has been assessed for the risk associated with landslides in relation to both property and life, and*
>
> *(b) the development will not cause significant detrimental impacts because of stormwater discharge from the development site, and*
>
> *(c) the development will not impact on or affect the existing subsurface flow conditions.*

Geotechnical investigations were undertaken at the site and it was reported that following onsite testing, it is not expected that the site will be affected by slope stability issues.

9.3.2. Any Development Control Plan: Warringah Development Control Plan 2011

9.3.2.1. Stormwater C4

This applies to all land to which the Warringah Local Environmental Plan 2011 applies. Stormwater runoff currently travels via overland flow to Curl Curl Lagoon and this process will not be impacted upon because the ground will not be significantly altered by the development and the development footprint is relatively small.

9.3.2.2. Erosion and Sedimentation C5

An erosion and sedimentation plan will be prepared before construction commences and appropriate erosion and sediment controls implemented during construction.

9.3.2.3. Excavation and Landfill (Clause C7)

The requirements of the this clause are as follows:

> *1. All landfill must be clean and not contain any materials that are contaminated and must comply with the relevant legislation.*
>
> *2. Excavation and landfill works must not result in any adverse impact on adjoining land.*
>
> *3. Excavated and landfill areas shall be constructed to ensure the geological stability of the work.*
>
> *4. Excavation and landfill shall not create siltation or pollution of waterways and drainage lines, or degrade or destroy the natural environment.*
>
> *5. Rehabilitation and revegetation techniques shall be applied to the fill.*
>
> *6. Where landfill is necessary, it is to be minimal and shall have no adverse effect on the visual and natural environment or adjoining and surrounding properties.*

Excavation will be required for the monopole and outdoor cabinet foundations and the requirements of this clause will be complied with. Rehabilitation and revegetation will be undertaken around the outdoor cabinet area.

9.3.2.4. Demolition and Construction (Clause C8)

A Construction Management Plan will be submitted to council prior to the commencement of construction.

9.3.2.5. Waste Management (Clause C9)

A Waste Management Plan will be submitted to council prior to the commencement of construction. Once operational the telecommunications facility would not produce any waste.

9.3.2.6. Electromagnetic Radiation (Clause D4)

The objectives of the above are as follows:

- *To ensure the safety of the community from electromagnetic radiation.*

• To ensure that mobile phone base station and associated infrastructure and equipment does not result in an adverse visual impact on the natural or built environment.

The purpose of the proposed telecommunications facility is to provide mobile phone coverage for the surrounding area by emitting electromagnetic energy (EME). As required, the facility will comply with the *Telecommunications Act 1997,* the *Code of Practice* and the *Australian Communications and Media Authority (ACMA)* regulations. The levels of EME produced by the proposed telecommunications facility will be far below the safe levels set by the ACMA.

The proposed telecommunications facility has been designed in order to be as minimally visually intrusive as possible whilst still performing as required for the Optus service. The proposed overall height of the monopole is 25.7m; at this height, the antennas will still able to achieve Optus' coverage requirements for a new telecommunications facility in the Curl Curl area whilst not causing unacceptable visual impact.

The antennas will be collar mounted on the monopole to reduce the horizontal dimensions at the top of the structure, as opposed to the use of a headframe design. All aspects of the telecommunications facility will remain in its natural product colour in order to reduce the potential for contrast with background landscapes and features.

(Refer to Visual Impact Assessment in Appendix L). In addition, it is proposed that the compound will be concealed by new bush planting (Refer to the Landscape Plan in Appendix C).

9.3.2.7. Building Bulk (Clause D9)

The objectives of this clause are as follows:

• To encourage good design and innovative architecture to improve the urban environment.

As a telecommunications facility, there are limitations in what is possible in terms of design to improve visual appearance.

• To minimise the visual impact of development when viewed from adjoining properties, streets, waterways and land zoned for public recreation purposes.

The proposed telecommunications facility has been designed to be respectful of its setting and surroundings. It is usually always preferable for telecommunications facilities to be elevated well above all other obstacles in the environment. In this case, the height of the structure has been limited to 25.7 metre monopole and thus it will not be considerably taller than the light pole it is proposed to replace.

Further, the facility will be setback at the rear of the site from the perspective of the nearest residences.

The antennas will be collar mounted on the monopole to reduce the horizontal dimensions at the top of the structure, as opposed to the use of a headframe design. All aspects of the telecommunications facility will remain in its natural product colour in order to reduce the potential for contrast with background landscapes and features. (Refer to Visual Impact Assessment in Appendix L). In addition, it is proposed that the compound will be concealed by new bush planting (Refer to the Landscape Plan in Appendix C).

1. Side and rear setbacks are to be progressively increased as wall height increases.

This requirement cannot be implemented; however the facility will be setback at the rear of the site from the perspective of the nearest residences.

2. Large areas of continuous wall planes are to be avoided by varying building setbacks and using appropriate techniques to provide visual relief.

This is not applicable to the proposed development; no walls are proposed as part of the telecommunications facility. Visual relief will be provided with new shrub plantings.

3. On sloping land, the height and bulk of development (particularly on the downhill side) is to be minimised, and the need for cut and fill reduced by designs which minimise the building footprint and allow the building mass to step down the slope. In particular:

– The amount of fill is not to exceed one metre in depth.
– Fill is not to spread beyond the footprint of the building.
– Excavation of the landform is to be minimised.

The development is located on land designated as having a slope of <5° and therefore not considered to be sloping land for the purposes of this clause.

4. Building height and scale needs to relate to topography and site conditions.

The proposed overall height of the telecommunications facility is 25.7m; at this height, the antennas will still able to achieve Optus' coverage requirements for a new telecommunications facility in the Curl Curl area whilst not causing unacceptable visual impact.

5. Orientate development to address the street.

This is not applicable to the proposed development being a telecommunications facility and not being built on a street.

6. Use colour, materials and surface treatment to reduce building bulk.

It is proposed that all aspects of the telecommunications facility will remain in its natural product colour in order to reduce the potential for contrast with background landscapes and features.

7. Landscape plantings are to be provided to reduce the visual bulk of new building and works.

Planting is proposed to conceal the outdoor cabinet. Refer to the Landscape Plan in Appendix C.

8. Articulate walls to reduce building mass.

This is not applicable to the proposed development as he proposed facility will not incorporate any substantial walls.

To conclude, Optus has designed a telecommunications facility which responds to the unique attributes of John Fisher Park and the wider area. Most notably, the height and headframe bulk of the monopole have been minimised to minimise visual impact. Appropriate colours have been selected and new plantings are proposed to provide visual screening (Refer to the Landscape Plan in Appendix C and Visual Impact Assessment in Appendix L).

9.3.2.8. Building Colours and Materials (Clause D10)

The objective of D10 is:

> *To ensure the colours and materials of new or altered buildings and structures are sympathetic to the surrounding natural and built environment.*

This objective has been incorporated into the design; all aspects of the telecommunications facility will remain in its natural product colour in order to reduce the potential for contrast with background landscapes and features.

The requirements of Clause D10 which are applicable to the proposed telecommunications facility are:

1. *In highly visible areas, the visual impact of new development (including any structures required to retain land) is to be minimized through the use of appropriate colours and materials and landscaping.*
2. *The colours and materials of development on sites adjoining, or in close proximity to, bushland areas, waterways or the beach must blend in to the natural landscape.*

All aspects of the telecommunications facility will remain in its natural product colour in order to reduce the potential for contrast with background landscapes and features. Planting is proposed and this would assist in reducing the contrast between the telecommunications facility and the site and lagoon (Refer to the Landscape Plan in Appendix C).

9.3.2.9. Safety and Security (Clause D20)

The telecommunications monopole and antennas will be accessible only via an elevated work platform and the outdoor unit will be secured. Landscaping around the outdoor cabinet will limit opportunities for graffiti of the facility (Refer to the Landscape Plan in Appendix C).

9.3.2.10. Prescribed Vegetation (Clause E2)

Prescribed vegetation includes all vegetation identified on mapping of:

a) *DCP Map Threatened and High Conservation Habitat* (Refer to Figure 28)

b) *DCP Map Wildlife Corridors* (Refer to Figure 29)

c) *DCP Map Native Vegetation* (Refer to Figure 30)

d) *known or potential habitat for threatened species, populations or ecological communities as listed under the NSW Threatened Species Conservation Act 1995 and/or the Commonwealth Environment Protection and Biodiversity Conservation Act 1999.*

The site is partially covered by all of the above overlays (although these do not necessarily cover the specific area of the proposed development.) As such, an ecologist was engaged to investigate potential impacts of the proposed development

The findings are summarised in sections 9.3.2.11 to 9.3.2.13. (refer to the flora and fauna report in Appendix N for further details).

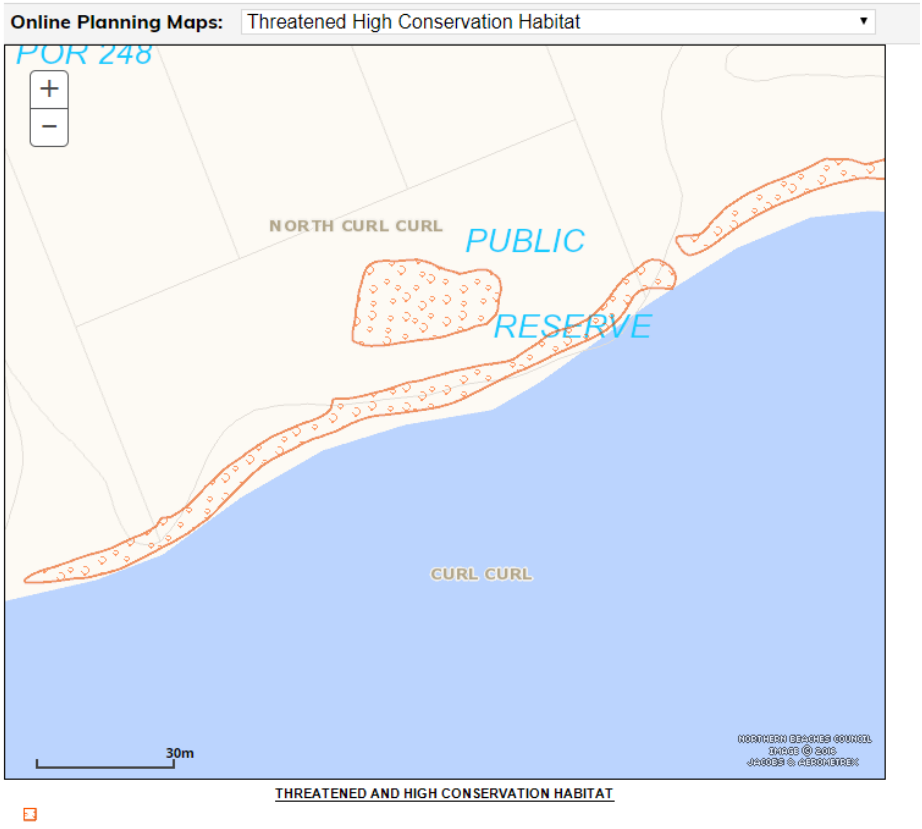


Figure 28 - Threatened and High Conservation Habitat (Warringah Council, 2014)

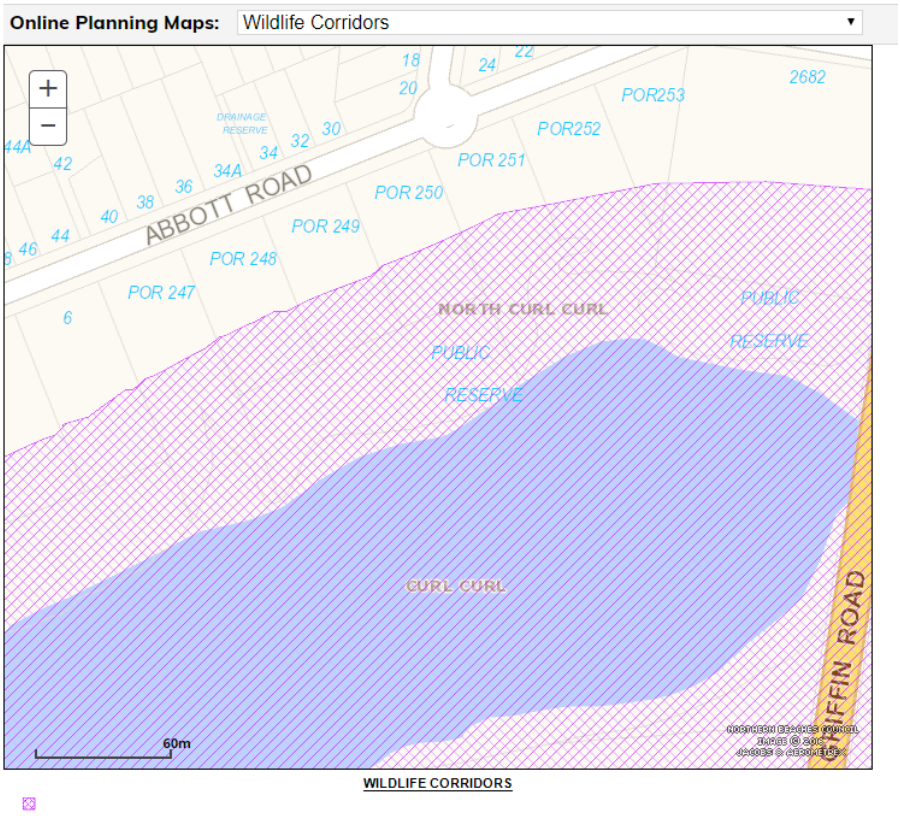


Figure 29 - Wildlife Corridors (Source: Warringah Council, 2014)

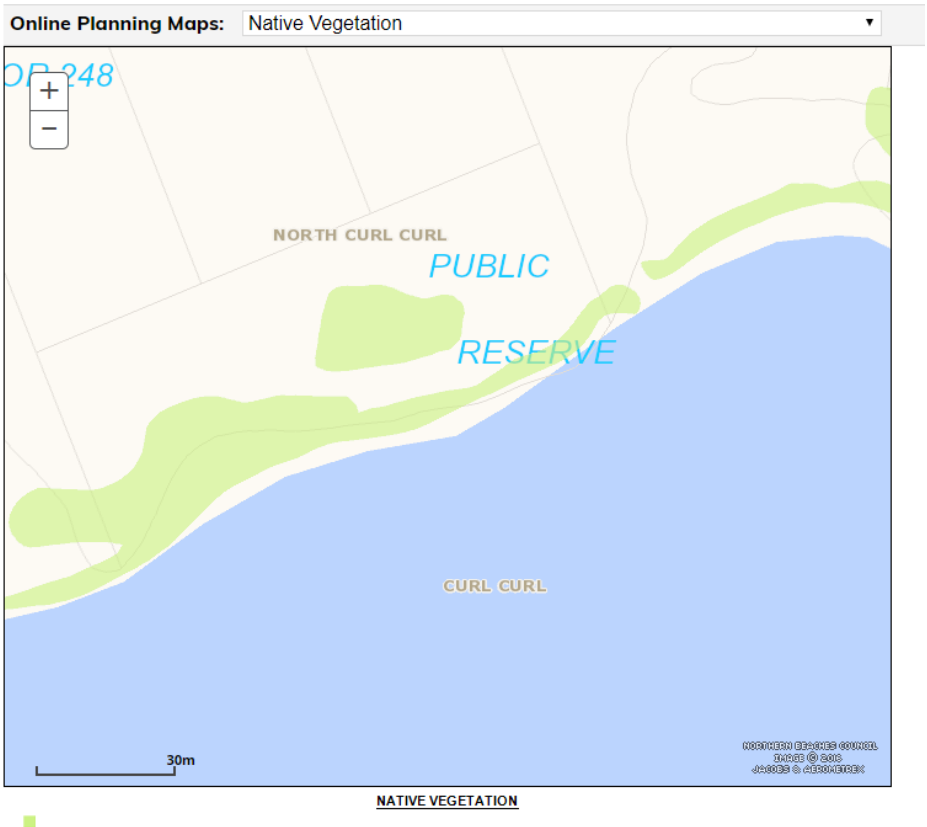


Figure 30 - Native Vegetation (Source: Warringah Council, 2014)

9.3.2.11. Threatened Species, Populations, Ecological Communities Listed Under State or Commonwealth Legislation, or High Conservation Habitat (Clause E3)

The Flora and Fauna Assessment prepared for the proposed works (Eco Logical Australia 2019) found that no habitat for threatened species existed within the study area due to the recent clearing of the site and the fact that the revegetated natives were too young to provide any habitat.

The Flora and Fauna Assessment did identify that the revegetated area was likely to be Estuarine Swamp Oak Forest, which aligns with Swamp Oak Floodplain Forest of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions, an Endangered Ecological Community (EEC) under the Biodiversity Conservation Act 2016 and Endangered under the Environment Protection and Biodiversity Conservation Act 1999. Considering the newly revegetated nature of this vegetation community, the fact that approximately 15 tubestock plants would be directly impacted by the proposed works and that these plants would be replaced under a Biodiversity Management Plan, it is unlikely that the proposed works would have a significant impact on the EEC.

9.3.2.12. Wildlife Corridors (E4)

A Flora and Fauna Assessment and Biodiversity Management Plan have been prepared (Refer to Appendix N) as per the requirements of this DCP control. Due to the recently cleared nature of the study area and the fact that vegetation to be removed as part of the proposed works is currently tubestock-sized that does not yet provide any habitat for fauna, the likelihood of an immediate impact on the mapped wildlife corridor in this area as a result of the proposed works is unlikely.

9.3.2.13. Native Vegetation (E5)

The study area has been recently cleared of exotic vegetation and replanted with native tubestock. No remnant native vegetation exists in the study area and the area of vegetation to be cleared as part of the proposed works is less than 100 m2.

9.3.2.14. Retaining Unique Environmental Features (Clause E6)

There are no unique environmental features located within the study area.

9.3.2.15. Development on Land Adjoining Public Open Space (Clause E7)

The requirements of E7 which are applicable to the proposed telecommunications facility are as follows:

> *1. Development on land adjoining public open space is to complement the landscape character and public use and enjoyment of the adjoining parks, bushland reserves and other public open spaces.*

The proposed development is to be built on public open space. However, the specific location of the proposed telecommunications facility will near the perimeter of the reserve and will not impede the use of the open space. The proposed telecommunications facility will compliment use of the open space by providing improved mobile phone coverage; a more reliable service and greater network capacity in the event of a high number of users or in an emergency.

> *2. Public access to public open space is to be maximised.*

Public access to the site will remain unchanged and unimpacted. The proposed telecommunications facility has a small footprint and will not affect this access in any way.

> *4. Development is to provide a visual transition between open space, bushland reserves or other public spaces and buildings, including avoiding abutting public open space with back fences.*

There will be no visible fencing; it is proposed that vegetation will be planted to provide visual screening of the outdoor cabinet.

> *5. Development is to protect views to and from public open space.*

There will be some visual impact resulting from the installation of the proposed telecommunications facility, however from a distance the structure will appear similar to a flood light pole. To reduce visual impact when viewed from close proximity, the outdoor cabinet will be screened by vegetation (Refer to the Visual Impact Assessment in Appendix L).

> *9. Development is to utilise landscaping or existing landscape elements to screen development.*

Existing trees provide a backdrop from within the site and Abbott Road. Furthermore, visual absorption will be provided by the existing flood light poles already located within the site.

9.3.2.16. Waterways and Riparian Lands (Clause E8)

As the site is within a designated waterways and riparian lands area (Refer to Figure 31), a Waterways Impact Statement has been prepared as required (Refer to Appendix P).

To summarise its findings, the proposed development complies with the requirements of Council's Protection of Waterways and Riparian Land Policy, in that there is no net loss to biodiversity, no change to natural flow regimes and no effect on bank stability likely to occur as a result of the proposed works.

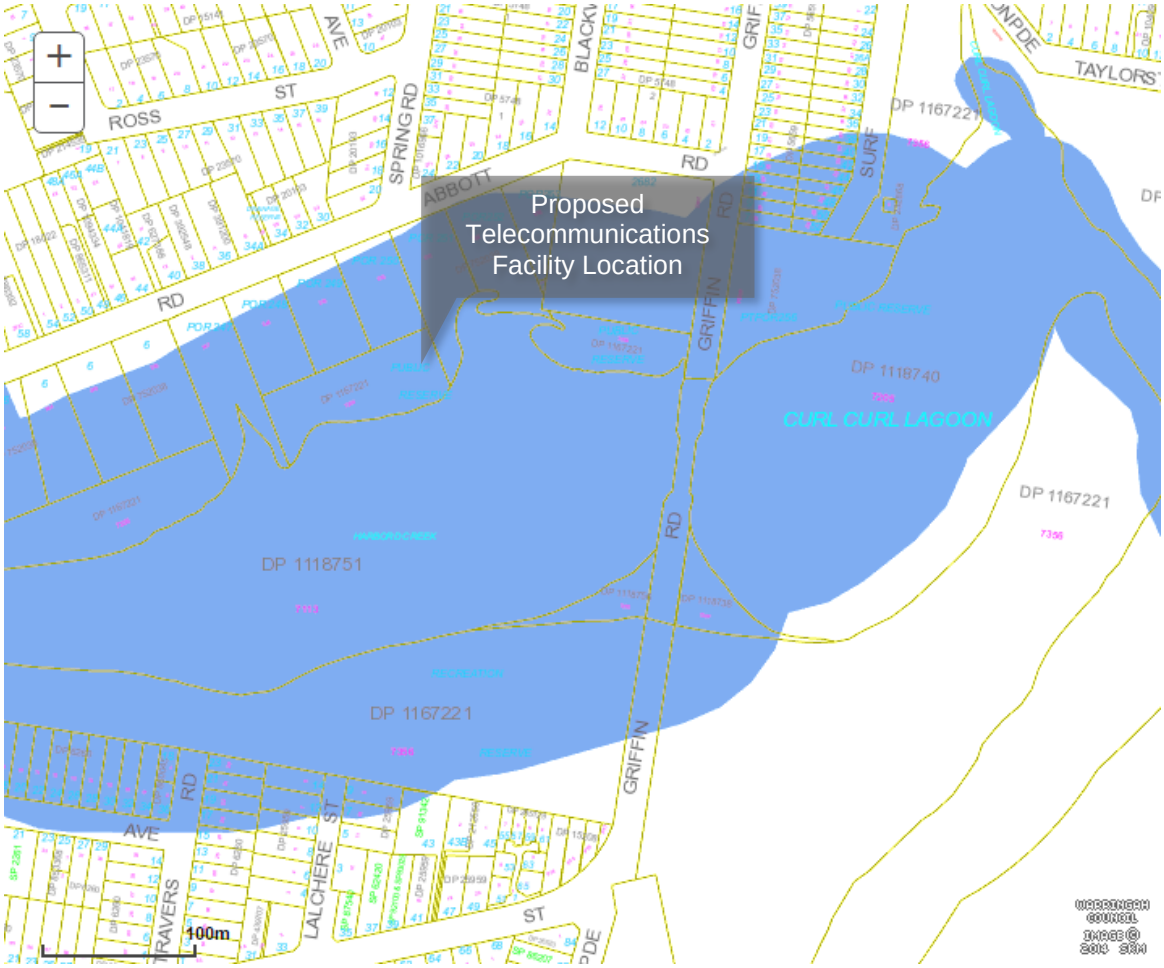


Figure 31 - Waterways and Riparian Lands (Source: Warringah Council, 2014)

A Waterway Impact Statement has been prepared for the proposed development in accordance with Warringah's Guidelines for Preparing a Waterways Impact Statement.

The Waterways Impact Statement concludes that the proposed development is unlikely to have adverse impacts on adjacent Curl Curl Lagoon or its riparian land. A recommendation is that an erosion and sediment control plan is to be developed and implemented during the works and any structures designed to minimise erosion and movement of sediment from site are to be maintained regularly, particularly before and after rainfall.

9.3.2.17. Coastline Hazard (Clause E9)

The development location will be located 3.5 kilometres away from the nearest Area of Reduced Foundation Capacity and Area of Wave Impact and Slope Adjustment. Therefore, this clause does not apply.

9.3.2.18. Landslip Risk (Clause E10)

The site is within the slope <5º area and therefore generally flat. As such, it is unlikely that a landslip would occur. A geotechnical investigation was undertaken at the site and it confirms the following: "A full slope stability assessment was not commissioned for this site, however from our onsite testing, we believe this site

will be unaffected by slope stability issues. Erosion and fretting from extreme weather events may cause local instability of batters or unretained faces."

(Refer to the Geotechnical Investigation in Appendix Q).

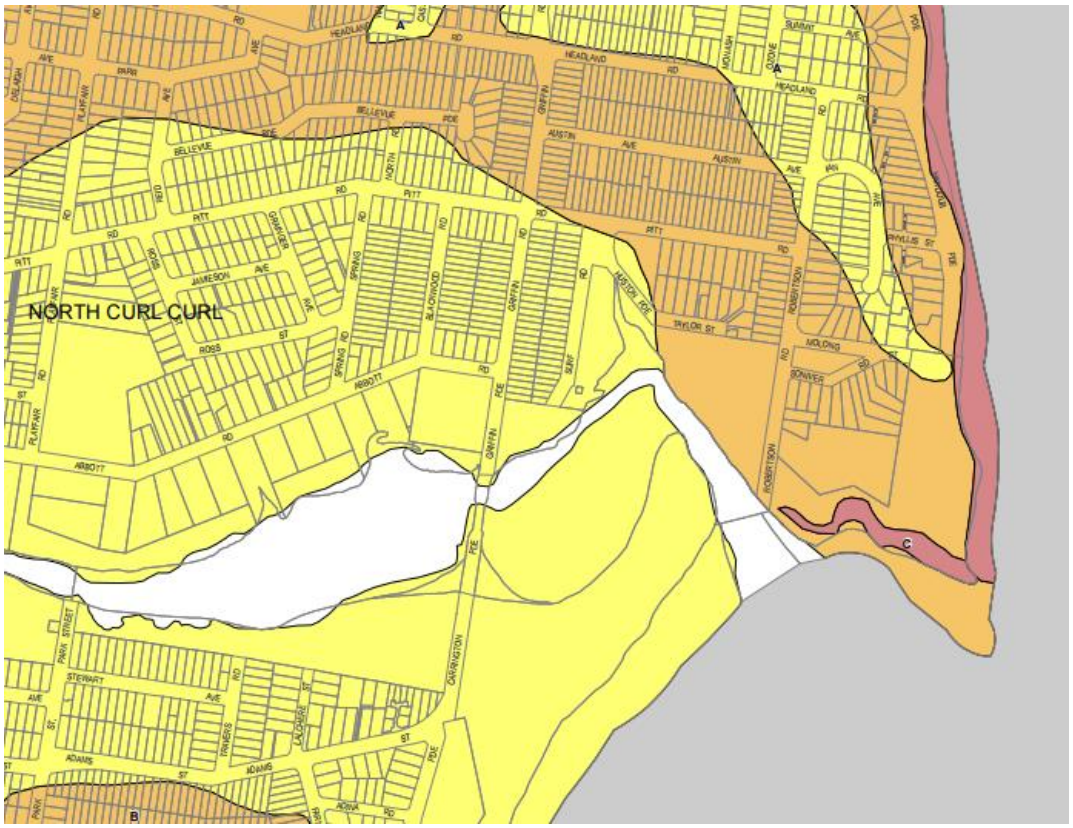


Figure 32 - Landslip Risk Map (Warringah Council, 2011)

9.3.2.19. Flood Prone Land (Clause E11)

The location of the proposed telecommunications facility is within the low flood risk planning precinct (refer to Figure 33) and the medium flood risk planning precinct (refer to Figure 34). Part of the site is within the high flood risk planning precinct (refer to Figure 35).

There are no risks to life from flooding as the facility is unmanned and no risks to the equipment from flooding as the outdoor cabinet will be raised to an appropriate level above ground on a steel platform.

There will be no reduction in vegetation resulting from the proposed telecommunication facility, as any disturbed vegetation will be replaced. There would be no costs to the community as a result of flooding, as the responsibility for repairs remain with Optus, which also has a duty to maintain the facility in the event of an outage.

In a pre-lodgement meeting held with the former Warringah Council it was confirmed that a flood risk assessment is not required given the small development footprint and absence of any risk to life.

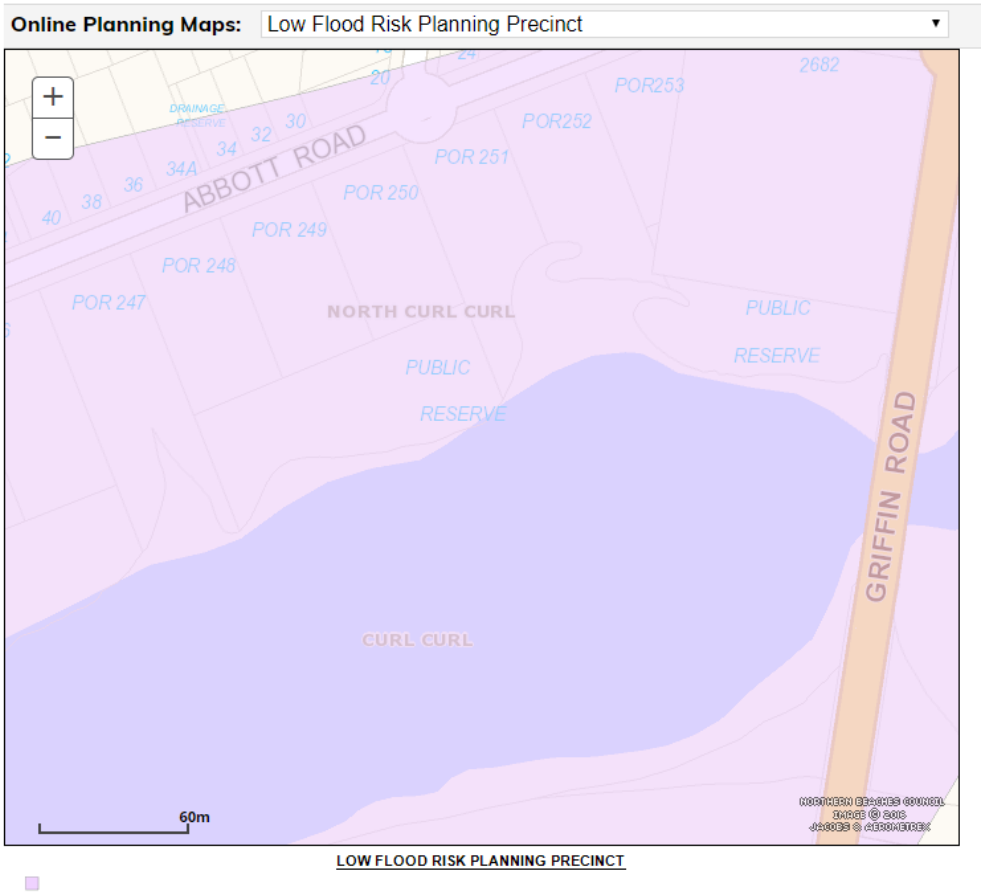


Figure 33 - Low Flood Risk Planning Precinct (Source: Warringah Council, 2014)

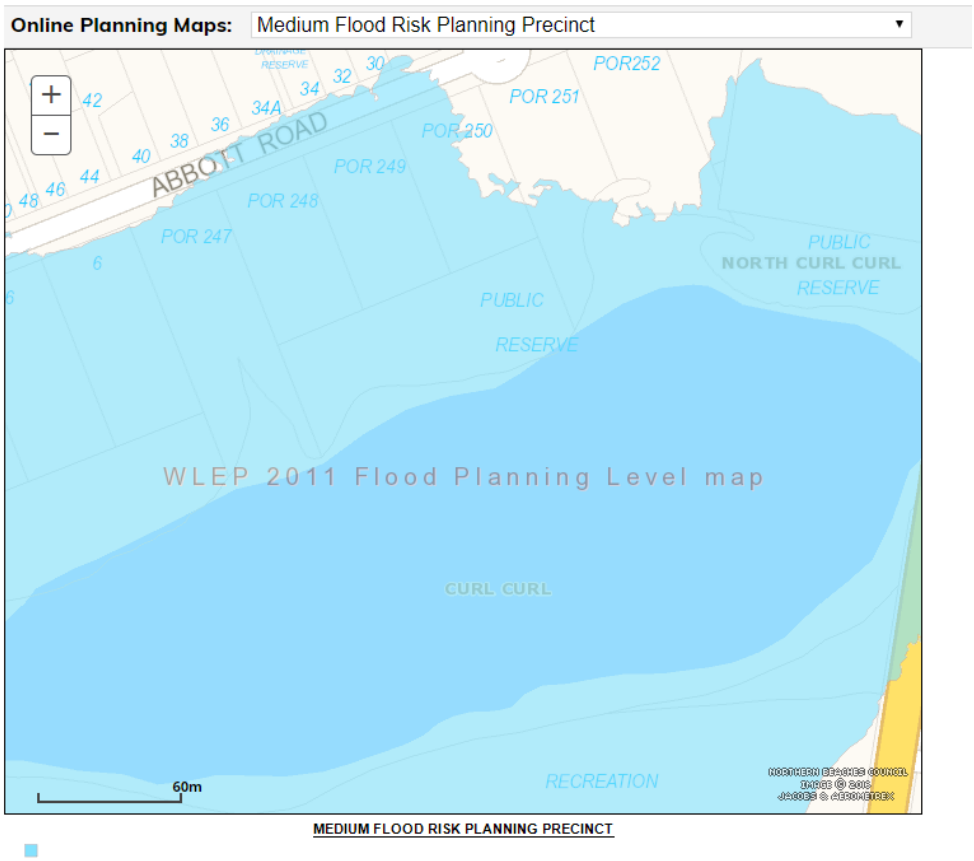


Figure 34 - Medium Flood Risk Planning Precinct (Source: Warringah Council, 2014)

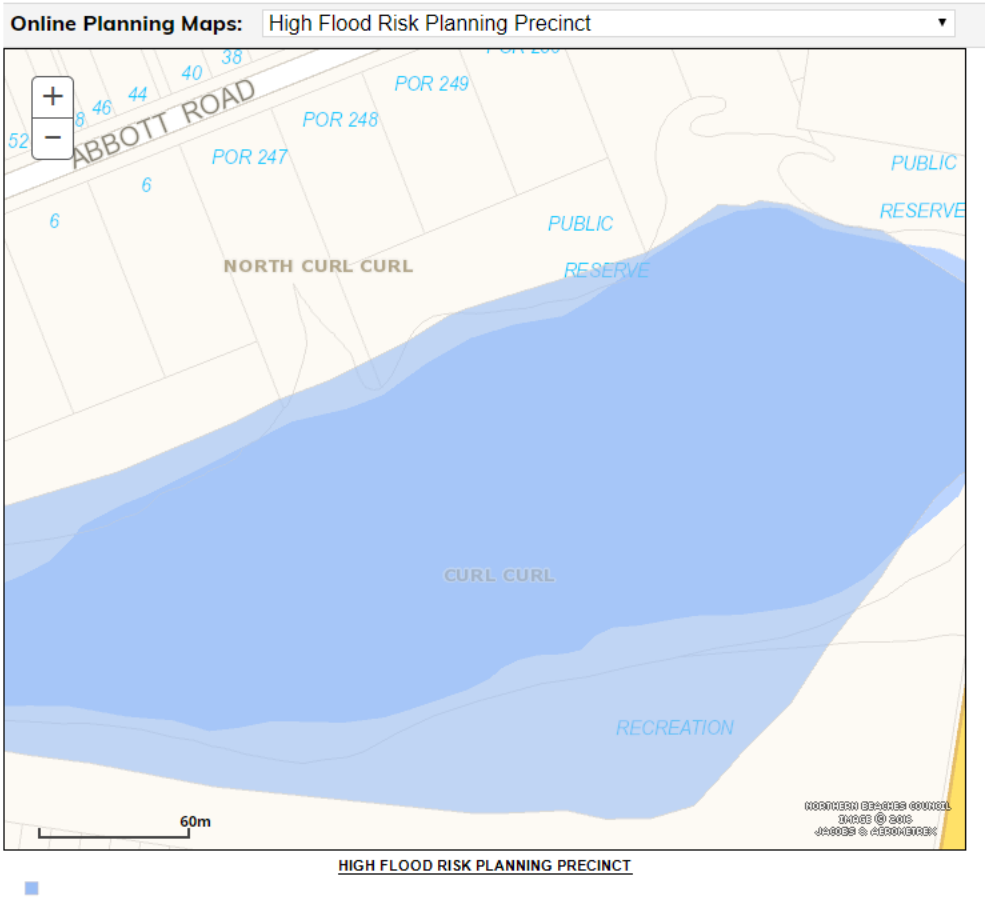


Figure 35 - High Flood Risk Planning Precinct (Source: Warringah Council, 2014)

9.3.3. Plans of Management

9.3.3.1. John Fisher Park Plan of Management

The John Fisher Park Plan of Management was adopted 13 November 2011. The aims of the John Fisher Plan of management are addressed in the following section.

The vision of John Fisher Park is as follows (taken from the executive summary):

- *John Fisher Park and Abbott Road Land should be a healthy, accessible open space that provides harmoniously for both active and passive recreation, which is well maintained and protected by responsible use and management.*

The proposed telecommunications facility will not conflict with this vision. Its construction and operation will not interfere in any way with the use of John Fisher Park as an accessible open space for active and passive recreation use. The facility will enhance the park by provide improved mobile phone coverage for visitors and ensure emergency services can be contacted if required.

The management objectives of the John Fisher Park Plan of Management are as follows (taken from the executive summary):

- *To provide a sound basis for the future management of John Fisher Park and Abbott Road Land, guiding the major strategies and actions that are needed to achieve the vision for John Fisher Park and Abbott Road Land.*

The proposed telecommunications facility does not conflict with this management objective.

- *To manage John Fisher Park and Abbott Road Land in accordance with ecologically sustainable development principles.*

The Principles of Ecologically Sustainable Development (ESD) of the EPBC Act 1999 are addressed in full in Table 3.

- *For a participatory style of management to be encouraged in all aspects of park operations so as to develop a sense of ownership between the community and the park.*

The community will have the opportunity to comment on the proposal as part of the development application process, thus ensuring the community's wishes for the park are heard.

- *To be consistent with and contribute to Council's overall management plan.*

The applicant is not aware of Council's overall management plan.

- *To incorporate Curl Curl Lagoon Rehabilitation Study recommendations and other relevant studies into the plan.*

Recommendations in the Curl Curl Lagoon Rehabilitation Study have been incorporated into the proposed development, specifically in the type of vegetation to be planted. A Biodiversity Management Plan has also been produced (Refer to Appendix N).

Section 5 states that the location of the proposed telecommunications facility is categorised as 'Park' in accordance with the *Local Government Amendment (Community Land Management) Act 1998*. *The definition of 'Park' as described in the Local Government Amendment (Community Land Management) Act 1998 and Local Government (General) Regulation 1999 is as follows:*

Land that is, or is proposed to be, improved by landscaping, gardens or the provision of non-sporting equipment and facilities for use mainly for recreational, social, educational and cultural pursuits that do not unduly intrude on the peaceful enjoyment of the land by others.

The proposed development will not prevent the site from remaining in use as a park in accordance with this definition. The specific location chosen for the proposed telecommunications facility is not occupied by any vegetation, but is adjacent to recently revegetated area; impacted vegetation will be replaced in accordance with a landscape plan (refer to Appendix C). The improved mobile network coverage that the proposed facility will provide will compliment social, educational, and cultural activities on the land; communications and online information will be more readily accessible to users of the park and visitors to the area.

The vision statement for John Fisher Park and Abbott Road Land.(8.3) is as follows:

"John Fisher Park and Abbott Road Land: to be a healthy, accessible open space that provides harmoniously for both active and passive recreation, which is well maintained and protected by responsible use and management."

The proposed telecommunications facility will not conflict with this vision. The land will remain a healthy, accessible open space and will allow all recreation activities to continue. The proposed facility will be maintained by Optus and will not impede the maintenance of any parts of the park.

All current and intended uses of the land must comply with the core objectives defined and addressed within the Action Plan in Section 10, which are as follows:

(a) *To protect the biodiversity and ecological values of wetlands, with particular reference to their hydrological environment, (including water quality and water flow), and to the flora, fauna and habitat values of the wetlands, and*

(b) *To restore and regenerate degraded wetlands, and*

(c) *To facilitate community education in relation to wetlands, and the community use of wetlands, without compromising the ecological value of wetlands*

The existing biodiversity and ecological value of Curl Curl Lagoon will not be impacted upon by the construction and operation of the proposed telecommunications facility and its construction will not impede the restoration and regeneration of any degraded wetlands. There will be no flora and fauna impacts as identified elsewhere in this report. The development cannot directly facilitate wetland education; however it will facilitate better access to education resources through improved mobile internet.

To conclude, it is considered that the proposed telecommunications facility does not conflict with the John Fisher Plan of Management. The facility meets the management objectives contained in the executive

summary. It does not conflict with the requirements of land defined as 'Park' and meets the action plan core objectives.

9.3.3.2. Warringah Council Coastal Lands Plan of Management

This Plan of Management applies to part of Lot 7356 DP1167221 however it does not apply to the specific location of the telecommunications facility (refer to Figure 36). Park community land category designations however the specific location of the proposed telecommunications facility is not included in the scope of this plan.

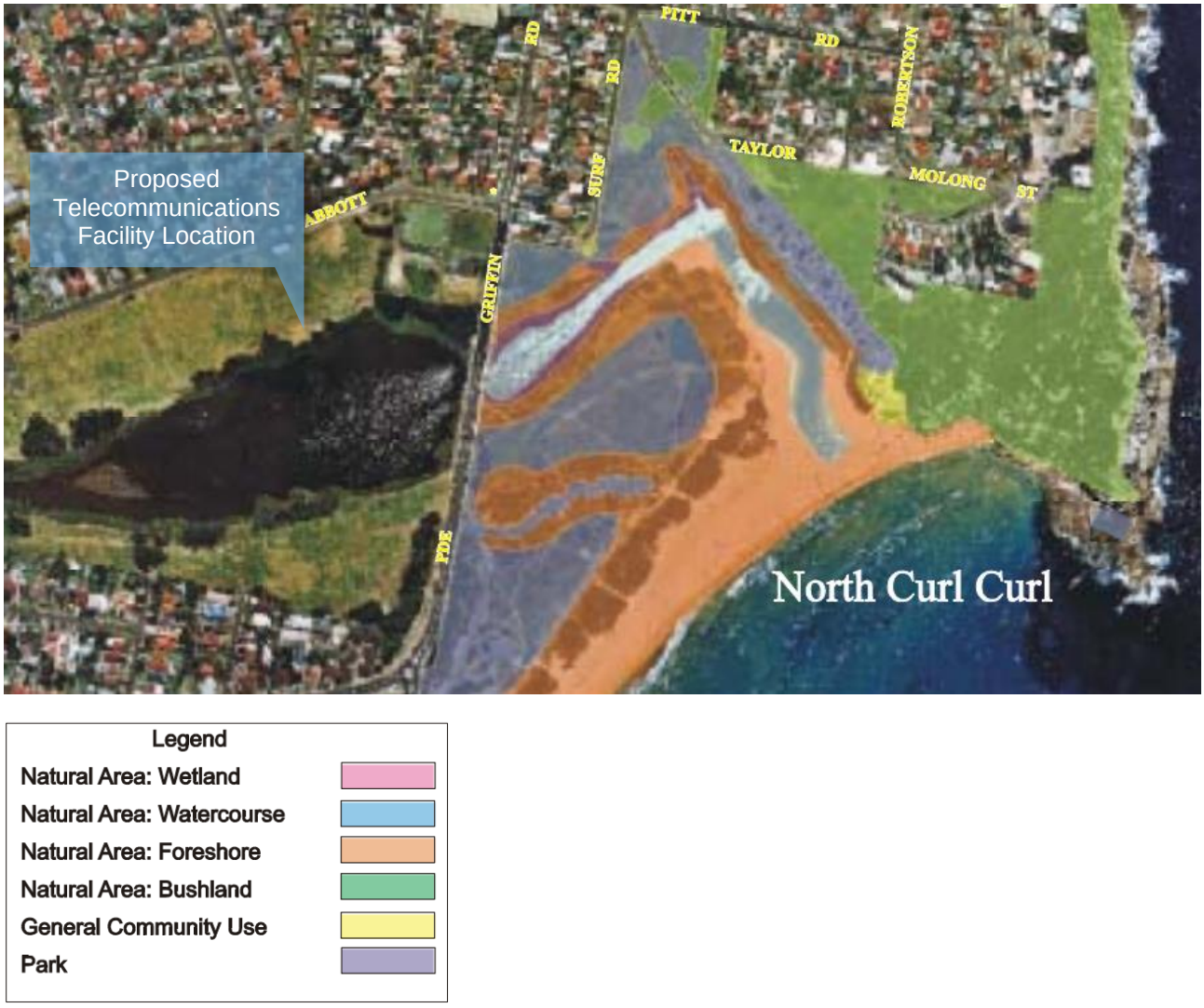


Figure 36 - Community Land Categories (Source: Warringah Council Coastal Lands Plan of Management, 2002)

Notwithstanding, the objectives of the Coastal Lands Plan of Management have been addressed and are as follows:

- *To protect and enhance the natural environmental qualities of the coast.*

The location of the proposed telecommunications facility is approximately 400m at its nearest. Considering this separation, there will be no negative impacts upon on the coast as a result of its installation or operation.

- *To provide quality recreation facilities and settings which cater for all groups in the community.*

The telecommunications facility would complement the use of the site as an area of public recreation by improving everyday communications and the ability to contact emergency services.

- *To preserve and manage coastal open space as the people's space, ensuring broad community access and availability to the resource.*

The proposed telecommunications facility will not impede access to and the function of coastal open space in any way.

- *To manage the land in a manner which protects and enhances its aesthetic, cultural, heritage and recreational qualities.*

The experience of visitors to the site will be enhanced with the addition of improved mobile phone coverage. Users of the fields will be able to access online information via an improved Optus network service.

To conclude, it is considered that the proposed telecommunications facility meets the objectives of the Coastal Lands Plan of Management by causing no impacts upon the environment and providing additional services to visitors.

9.3.4. The Likely Impacts of the Development

Below is an assessment of the relevant likely impacts of the proposed telecommunications facility.

9.3.4.1. Flora and Fauna

The proposed development will not impact upon any existing trees within the site (refer to the Arboricultural Impact Assessment in Appendix M).

A Flora and Fauna Assessment and Biodiversity Management Plan has been produced (refer Appendix N) in order to identify potential impacts resulting from the proposed development. Table 5 identifies the potential direct and indirect impacts that may occur as a result of the proposed works.

Table 5 - Potential direct and Indirect flora and fauna impacts

Direct impacts:	**Details**
Clearing of vegetation	Recently planted native tubestock-sized species may be impacted during construction, however this will be replaced as identified in the landscape plan.
Loss/modification to threatened species habitat	The recently planted tubestock-sized species are not yet mature enough to provide habitat to fauna species. Therefore, it is unlikely that habitat for threatened species would be lost or modified as a result of the proposed works.
Modification or fragmentation of vegetation	The tubestock species are on the edge of the riparian vegetation and the area would be replanted as part of the required Biodiversity Management Plan. Therefore, there is no potential for vegetation within the study area to become further fragmented.
Indirect impacts	**Details**
• Increased spread of weed infestations • Soil erosion or compaction of soil from heavy machinery • Phytophthora cinnamomi spread from machines/personnel • Sediment mobilisation or change in water quality	Impacts from noise, dust, vibrations, compaction, weed invasion, sedimentation, dust, accidental spills and leaks have been considered, resulting from the operation of heavy machinery to install the communication station. The area subject to indirect impacts is small at 0.0085 ha. In response to the potential for the above indirect impacts, a sediment and erosion control plan will be prepared before construction commences. A sediment fence will be installed along the edge of the direct impact area to act as exclusion fencing for workers and machinery as well as prevent spread of weed propagules. As such, indirect impacts to threatened species and native vegetation are unlikely to be significant and will be managed.

• Run-off from hard surfaces into the creek line and adjacent vegetation.	

Refer to the Flora and Fauna Assessment and Biodiversity Management Plan in Appendix N and the Arboricultural Impact Assessment in Appendix M).

9.3.4.2. Geology, Soil, Water Quality and Hydrology

A geotechnical investigation has been undertaken to identify the geological conditions of the site and to identify the appropriate foundation type. This will be reflected in construction plans submitted to a building certifier for approval as part of a construction certificate application.

The proposed works will not significantly alter the surface topography and the surface area of the proposed structures are small, therefore drainage patterns will be unaffected. Geotechnical investigations were undertaken at the site and it was reported that following onsite testing, it is not expected that the site will be affected by slope stability issues.

A Preliminary Site Investigation inclusive of Supplementary Sampling & Waste Classification has been undertaken due to council mapping indicating the presence of acid sulfate soils. Following on from this assessment, it has been identified that an Acid Sulfate Soils Management Plan is required; this will be produced before construction commences on site.

A soil and erosion plan, a construction waste management plan (refer to Appendix B) and a waste management plan (refer to Appendix O) have been produced for implementation during the construction phase to prevent environmental impacts to the site and to the lagoon. There will be no waste products produced by the telecommunications facility once operational.

9.3.4.3. Bushfire Prone Land

There is no mapped bushfire prone land within the Abbott Road site (according to the Warringah LEP maps) and no significant areas of vegetation. There would therefore be no bushfire threat to the telecommunications facility and no increase in bushfire threat to surrounding area as a result of the development.

9.3.4.4. Air Quality

During the operation of the facility, no air pollutants will be emitted and there will be no impact on local air quality. Measures will be put in place to supress dust during construction of the facility. Given the separation of the development location to neighbouring uses, it is unlikely that any air pollutants will noticeably or adversely affect surrounding uses.

9.3.4.5. Heritage & Character

A search was undertaken on the following databases for items of heritage significance;

- Australian Heritage Database of the Australian Heritage Council;
- Australian Heritage Places Inventory;
- State Heritage Inventory of the NSW Heritage Office; and
- Aboriginal Heritage Information Management System (AHIMS)

Three heritage items were identified within Lot 7356 DP1167221. No heritage items are less than 500 metres in proximity to the location of the proposed telecommunications facility, therefore there is no likelihood of any impacts (Refer to Section 9.3.1.2 for further information).

9.3.4.6. Aboriginal Cultural Significance

According to AHIMS reports undertaken by Urbis on 17 June 2019, there are four items of Aboriginal heritage significance located within Lot 7356 DP1167221 and six items of Aboriginal heritage significance located within Lot 7356 DP1167221 (with a 50-metre buffer).

Urbis requested an extensive AHIMS search and has mapped the locations of these items. An assessment of the proposal has been undertaken in accordance with the Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW (see Section 9.2.4.1).

The proposed works will occur on an area of disturbed land which is 500m from the nearest identified item of Aboriginal heritage significance. There are no indications of the presence of Aboriginal objects other than those identified in Figure 22. Regardless, an Aboriginal Due Diligence Assessment has been undertaken (Refer to Section 9.2.4.1). The assessment concluded that no Aboriginal objects were located within the study area. No known Aboriginal objects or places will be impacted by the proposed works and the location of the proposed works is not within a highly sensitive area, though low potential does exist for unidentified sub surface deposits or hidden surface sites to occur. As such, the works can progress without the need for an AHIP.

9.3.4.7. Native Title

According to the Commonwealth Native Title Registrar, there are no title claims which currently apply to the land.

9.3.4.8. Visual Impact

Throughout the wider visual catchment, where views towards the proposal may be possible, visibility will be limited mainly to the upper parts of the monopole and antennae.

Higher impacts will mostly be experienced from residents to the north of the proposal along Abbott Road. However, given the similarity of form of the proposal with the existing lighting towers, the visual impact for these viewpoints is considered low to moderate.

With regard to the sensitivity of users, residents are considered to be of a high visual sensitivity, whereas those involved in the playing of field sports are considered to be of a lower visual sensitivity due to the activity they are undertaking being not dependant on the visual quality of the setting.

The outdoor unit will be concealed with vegetation planted accordance with the landscape plan (refer to Appendix C).

The typical colour of the Optus equipment shelter is pale eucalypt, as this is a colour which cases minimal visual contrast with most environments.

From distant viewpoints, throughout the residential area and the Curl Curl beach foreshore, although the upper parts of the project will be visible above the surrounding canopy vegetation, the greater distance will result in a lower level of visual prominence, as well as high degree of visual compatibility with the vertical elements of the townscape.

To summarise it is considered that the proposed use and development is an appropriate response for the subject site and surrounds for the following reasons:

- It is an appropriate use given the visual character of sporting related infrastructure which already exists within the setting.
- The proposal is not of a scale of visual prominence that would result in an adverse impact to the visual amenity of surrounding properties.
- The majority of the proposal is mostly screened from more distant viewpoints by intervening vegetation and built form.

Given the advantages to be derived by the public at large (by increasing telecommunications coverage and capacity) Optus believes that the visual impact is acceptable is acceptable and outweighs any general loss of visual amenity (Refer to the Visual Impact Assessment in Appendix L for further details).

9.3.4.9. Noise Impacts

Noise generation during construction will include machinery associated with drilling and excavation. Any noise generated would be minor, short term in duration and undertaken only during standard working hours, or hours set by council as conditions of development approval. No noise will be generated during operation of the facility.

9.3.4.10. Waste Management

A waste management plan will be submitted prior to the construction phase addressing waste disposal during the construction of the facility.

9.3.4.11. Traffic and Access

Vehicle access to the site is available via the gate on Abbott Road. This gate is in place to allow maintenance to access the fields.

It is estimated that construction will be completed within 5 weeks following commencement of works. Minimal traffic impacts are expected during the construction phase of the proposal. A traffic management plan will be prepared prior to the construction phase in order to ensure that accessibility and traffic flow at the site are not affected.

Once operational, the telecommunications facility will be unmanned. The outdoor cabinet will be locked to restrict unauthorised access. Vehicular access to the site will be required only occasionally for maintenance and therefore would have a negligible impact upon traffic in the area.

The proposed development will comply with any relevant road traffic noise standards (addressed in Section 9.3.4.11).

9.3.4.12. Cumulative Environmental Effect

The key environmental impacts of the proposed development have been identified and considered separately and collectively from a cumulative impact perspective.

The main potential impacts are:

- EME exposure
- Visual impact
- Ecological impacts

EME emissions from the proposed telecommunications facility will be far below the public exposure limit set by ARPANSA and ACMA, therefore, EME emissions are not considered a cause for concern (refer to section 8 for further details).

The proposed development has potential to cause visual impact when viewed from the immediate surrounding area. However, when viewed from the wider area, likelihood of visual impact is considered to be lower. The telecommunications facility has been design and sited in accordance with Principle 1 of the 'NSW Telecommunications Facilities Guideline 2010' (Refer to Appendix E). An overview of how visual impact has been minimised where possible is outlined in Section 9.3.4.8 of this report. A Visual Impact Assessment has been undertaken to determine the anticipated visual impacts on the area (Refer to Appendix L).

Any environmental impact during construction is expected to be temporary and mitigated through the implementation of appropriate work measures specified within this Statement of Environmental Effects. Consequently, the proposed development is not considered to have an adverse cumulative impact on the environment.

9.3.5. The Suitability of the Site for the Development

The proposed installation is considered suitable for the following reasons:

- This location will allow Optus to provide a service which targets coverage gaps in the network in Curl Curl
- In replacing an existing light pole and retaining the lighting function the facility does not conflict with use of the site for public recreation and sporting activities and enhances the recreational use of the reserve and provides added safety measures in providing mobile voice and internet coverage.
- No heritage items or other environmentally sensitive items will be impacted
- A design has been produced to minimise visual impact on the surrounding area, incorporating minimal height and width of the pole in the design and equipment as well as new planting of vegetation

9.3.6. Any Submissions

Section 4.15 (d) and (e) of the Act require that any public submissions made in accordance with the Act or the public interest be considered in the development assessment process. The public, owners, occupants and any other local stakeholders should be consulted as part of the development application process. Optus will have regard to any submissions received.

9.3.7. The Public Interest

The proposed facility is considered to be in the public interest due to the communications improvements which will be provided to Curl Curl and the surrounding area whilst causing minimal impacts on the site and

surrounding area. The new telecommunications facility will provide greater network capacity and improved data speed for Optus users, with a more reliable network for all mobile users in the event of an emergency.

Further as of April 2020 it is apparent that the facility is able to provide addiuonal public benefits consistent with the Department of Planning, Industry and Environment – Priority project Guidelines that seek to progress key projects in the planning system that can benefit the NSW economy during the COVID-19 health crises.

In making this development application it should be noted that the following addiuonal public benefits would apply having reference to the Department of Planning, Industry and Environment – Priority project Guidelines

Jobs – The proposed development will provide a small amount of construction and maintenance jobs for the facility (up to 10/15) however its real value will be in the jobs that it will be able to support in the local area, enabling people to efficiently work from home including those working at home from their main occupations as well as small business and shops nearby which will benefit from increased mobility from coverage being able to handle online orders, home deliveries and the like. The economic benefit and knock on boost to jobs and productivity and allowing people to work safely from home cannot be underestimated. Currently the poor service means that people are ineffective working from home and operating business in the area due to the blackspot that this will resolve with he

Timing – Once approved Optus have the funding ready to begin construction immediately. The construction would take 4-6 weeks which means that the benefits could be active very quickly once the development application is approved by Council.

Public benefits – As discussed around jobs the knock on effect of filling the blackspot and providing fast and reliable mobile phone and wireless internet coverage cannot be underestimated with a host of public benefits in job retention and creation, assisting small and local business and in safety aspect providing quality coverage to the park, Curl Curl beach and the surrounding areas which is inadequate and is a safety6 issue. Further having this facility in this location means that strain is taken off of other mobile phone facilities connected to the cell providing relief from congestion on the network further afield so the domino effect of improvements would be felt across the Northern Beaches LGA and beyond.

As you can see the public befits are enormous from this proposal and it is very much within the public interest in this development application being granted consent to that they can be realised for the local and wider Northern Beaches community.

10. CONCLUSION

Following a review of all applicable legislation and taking into consideration feedback from community stakeholders the proposed installation of an Optus telecommunications facility at Lot 7356 DP1167221, Abbott Road Sportsground, North Curl Curl, NSW 2096 is considered appropriate and necessary.

The proposed telecommunications facility is required to provide Optus coverage in area identified as a network blackspot; this existing blackspot was further amplified with the scheduled removal of a nearby existing telecommunications facility in McKilllop Park.

As part of this Statement of Environmental Effects (SEE), a detailed review of the impacts of the proposal to install a telecommunications facility at Abbott Road Sportsground were considered with regard to Commonwealth and State legislation and in particular the Warringah LEP 2011 and the Warringah DCP 2011.

Detailed community consultation was undertaken with the community and council in order to identify the most appropriate location for a new telecommunications facility in the Curl Curl area. As part of the site selection, Optus considered:

- Existing telecommunications facilities which could be upgraded
- Potential locations for a new facility
- The outcomes of consultation with the community and council

Optus' site selection process was revisited following the refusal of a development application for a telecommunications facility at Adam St Reserve (Refer to section 4.2.6 of this report). At this point it was considered that a new proposal would have less visual impact that the proposal at Adam St Reserve and may be preferable to the community and council.

Other reasons why Abbott Road Sportsground is considered an appropriate location for the telecommunications facility include:

- There are no environmental or heritage or concerns in this location
- The proposed position will not impact upon the existing use or amenity of the park and will increase the usage of the park by providing lighting for sporting activities as well as reliable communications within the park.
- The potential for negative visual impact is reduced by adjacent trees and proposed planting of further vegetation
- The site is not near community sensitive locations
- The proposal complies with the provisions of the Warringah LEP 2011 and the Warringah DCP 2011 and the relevant State and Commonwealth legislation.

Considering the above, Optus requests that Northern Beaches Council provides development consent for the proposed telecommunications facility at Lot 7356 DP1167221, Abbott Road Sportsground, North Curl Curl, NSW 2096.

DISCLAIMER

This report is dated 4th May 2020 and incorporates information and events up to that date only and excludes any information arising, or event occurring, after that date which may affect the validity of Urbis Pty Ltd's (**Urbis**) opinion in this report. Urbis prepared this report on the instructions, and for the benefit only, of Optus Mobile Pty Ltd (**Instructing Party**) for the purpose of Statement of Environmental Effects (**Purpose**) and not for any other purpose or use. To the extent permitted by applicable law, Urbis expressly disclaims all liability, whether direct or indirect, to the Instructing Party which relies or purports to rely on this report for any purpose other than the Purpose, and to any other person which relies or purports to rely on this report for any purpose whatsoever (including the Purpose).

In preparing this report, Urbis was required to make judgements which may be affected by unforeseen future events, the likelihood and effects of which are not capable of precise assessment.

All surveys, forecasts, projections and recommendations contained in or associated with this report are made in good faith and on the basis of information supplied to Urbis at the date of this report, and upon which Urbis relied. Achievement of the projections and budgets set out in this report will depend, among other things, on the actions of others over which Urbis has no control.

In preparing this report, Urbis may rely on or refer to documents in a language other than English, which Urbis may arrange to be translated. Urbis is not responsible for the accuracy or completeness of such translations and disclaims any liability for any statement or opinion made in this report being inaccurate or incomplete arising from such translations.

Whilst Urbis has made all reasonable inquiries it believes necessary in preparing this report, it is not responsible for determining the completeness or accuracy of information provided to it. Urbis (including its officers and personnel) is not liable for any errors or omissions, including in information provided by the Instructing Party or another person or upon which Urbis relies, provided that such errors or omissions are not made by Urbis recklessly or in bad faith.

This report has been prepared with due care and diligence by Urbis and the statements and opinions given by Urbis in this report are given in good faith and in the reasonable belief that they are correct and not misleading, subject to the limitations above.

APPENDIX A OWNER'S CONSENT TO LODGE A DEVELOPMENT APPLICATION – TO BE OBTAINED FROM CROWN LAND

APPENDIX B SITE PLANS

APPENDIX C LANDSCAPE PLAN

APPENDIX D SURVEY PLAN

APPENDIX E EME REPORT

APPENDIX F DEPLOYMENT CODE SECTION 4.1 & 3.2 CHECKLISTS

APPENDIX G NSW TELECOMMUNICATIONS FACILITIES GUIDELINE INCLUDING BROADBAND

APPENDIX H CONSULTATION LETTER

APPENDIX I EPBC REPORT

APPENDIX J ATLAS OF NSW WILDLIFE RECORDS

APPENDIX K AHIMS SEARCH

APPENDIX L VISUAL IMPACT ASSESSMENT

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